JVC

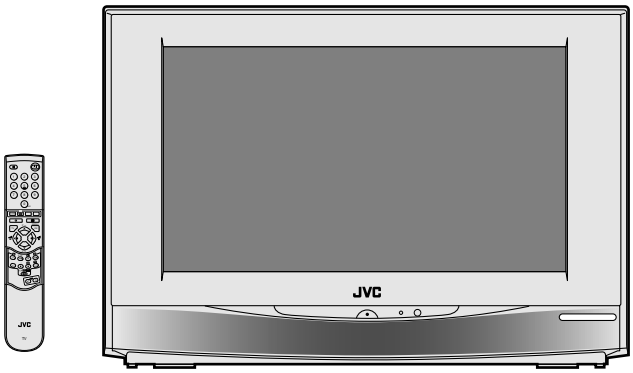
SERVICE MANUAL

COLOUR TELEVISION

AV-28X5BU, AV-28X5SU, AV-32X5BU, AV-32X5SU

BASIC CHASSIS
ML2

T-V LINK



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SPECIFICATION

Items		Contents	
		AV-28X5BU AV-28X5SU	**AV-32X5BU AV-32X5SU**
Dimensions (W × H × D)		76.2 cm × 52.8 cm × 49.3 cm	86.4 cm × 58.7 cm × 55.0 cm
Mass		39.0 kg	53.0 kg
TV RF System		CCIR (B/G, I, D/K, L)	
Colour System		PAL SECAM NTSC3.58 / NTSC4.43 (Only EXT mode)	
Stereo System		A2 (B/G, D/K) / NICAM (B/G, I, D/K, L)	
Receiving Frequency	VHF	47 MHz - 470 MHz	
	UHF	470 MHz - 862 MHz	
	French CATV	116 MHz - 172 MHz 220 MHz - 469 MHz	
Intermediate Frequency	VIF	38.9 MHz (B/G, I, D/K, L)	
	SIF	33.4 MHz (5.5 MHz :B/G) 32.9 MHz (6.0 MHz:I) 32.4 MHz (6.5 MHz :L, D/K)	
Colour Sub Carrier Frequency	PAL	4.43 MHz	
	SECAM	4.40625 MHz / 4.25 MHz	
	NTSC	3.58 MHz / 4.43 MHz	
Teletext System		TOP (German system) FLOF (Fastext) WST (Standard system)	
Power Input		AC220 V - AC240 V, 50 Hz	
Power Consumption		120 W, Standby : 2.5 W	130 W, Standby : 2.5 W
Picture Tube		Visible size : 66 cm [measured diagonally] (H : 58.3 cm × V : 33.0 cm)	Visible size : 76 cm [measured diagonally] (H : 67.4 cm × V : 38.4 cm)
High Voltage		31.0 kV (+1 kV / -1.5 kV) (at zero beam current)	
Speaker		13 cm × 6.5 cm oval type × 2	
Audio Power Output		10 W + 10 W	
Aerial Input Terminal		75 Ω unbalanced, coaxial	
EXT-1 / EXT-2 / EXT-3 (Input / Output)		21-pin Euro connector (SCART socket × 3)	
EXT-4 (Input)	S-Video	Mini-Din 4 pin × 1 Y : 1 V(p-p) positive (negative sync, 75Ω) C : 0.3 V(p-p) (Burst signal, 75Ω)	
	Video	1 V(p-p) 75 Ω, RCA pin jack × 1	
	Audio (L/R)	500 mV(rms) (-4 dBs), High impedance, RCA pin jack × 2	
Audio output		0-1000 mV (rms), Low impedance, RCA pin jack × 2	
Headphone Jack		3.5 mm stereo mini jack × 1	
Remote Control Unit		RM-C64 (AAA/R03 dry cell battery × 2)	

Design & specifications are subject to change without notice.

SECTION 1
PRECAUTION

1.1 SAFETY PRECAUTIONS

(1) The design of this product contains special hardware, many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.

(2) Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.

(3) Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. **Electrical components having such features are identified by shading on the schematics and by (⚠) on the parts list in Service manual**. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may cause shock, fire, or other hazards.

(4) **Don't short between the LIVE side ground and ISOLATED (NEUTRAL) side ground or EARTH side ground when repairing.**
Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND, the ISOLATED (NEUTRAL) : (⏚) side GND and EARTH : (⏚) side GND.
Don't short between the LIVE side GND and ISOLATED (NEUTRAL) side GND or EARTH side GND and never measure the LIVE side GND and ISOLATED (NEUTRAL) side GND or EARTH side GND at the same time with a measuring apparatus (oscilloscope etc.). If above note will not be kept, a fuse or any parts will be broken.

(5) If any repair has been made to the chassis, it is recommended that the B1 setting should be checked or adjusted (See B1 POWER SUPPLY check).

(6) The high voltage applied to the picture tube must conform with that specified in Service manual. Excessive high voltage can cause an increase in X-Ray emission, arcing and possible component damage, therefore operation under excessive high voltage conditions should be kept to a minimum, or should be prevented. If severe arcing occurs, remove the AC power immediately and determine the cause by visual inspection (incorrect installation, cracked or melted high voltage harness, poor soldering, etc.). To maintain the proper minimum level of soft X-Ray emission, components in the high voltage circuitry including the picture tube must be the exact replacements or alternatives approved by the manufacturer of the complete product.

(7) Do not check high voltage by drawing an arc. Use a high voltage meter or a high voltage probe with a VTVM. Discharge the picture tube before attempting meter connection, by connecting a clip lead to the ground frame and connecting the other end of the lead through a 10kΩ 2W resistor to the anode button.

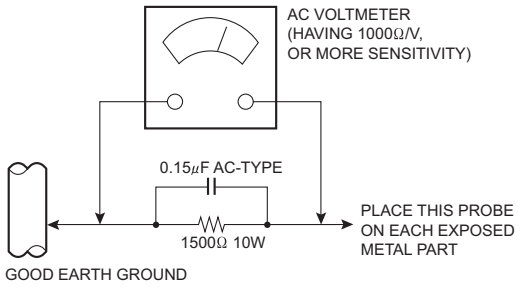
(8) When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.

(9) **Isolation Check (Safety for Electrical Shock Hazard)**
After re-assembling the product, always perform an isolation check on the exposed metal parts of the cabinet (antenna terminals, video/audio input and output terminals, Control knobs, metal cabinet, screw heads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

a) **Dielectric Strength Test**
The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 3000V AC (r.m.s.) for a period of one second. (. . . Withstand a voltage of 1100V AC (r.m.s.) to an appliance rated up to 120V, and 3000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.)
This method of test requires a test equipment not generally found in the service trade.

b) **Leakage Current Check**
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.).
However, in tropical area, this must not exceed 0.2mA AC (r.m.s.).

Alternate Check Method
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Use an AC voltmeter having 1000Ω per volt or more sensitivity in the following manner. Connect a 1500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.).
However, in tropical area, this must not exceed 0.3V AC (r.m.s.). This corresponds to 0.2mA AC (r.m.s.).



SECTION 2
SPECIFIC SERVICE INSTRUCTIONS

2.1 FEATURES

ZOOM

This function can change the screen size according to the picture aspect ratio.

PICTURE MODE

This function can adjust the picture settings automatically.

3D CINEMA SOUND

You can enjoy sounds with a wider ambience.

MOVIE THEATRE

This function displays a cinema film picture more smoothly and naturally on the screen.

DIGITAL VNR

This function cuts down the amount of noise in the original picture.

DigiPure Pro

This function uses the latest in digital technology to give you a natural-looking picture.

2.2 MAIN DIFFERENCE LIST

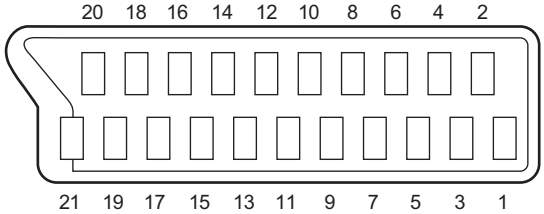
Item	AV-28X5BU	AV-28X5SU	AV-32X5BU	AV-32X5SU
CABINET COLOUR	Black	Silver	Black	Silver
MAIN PWB	SML-1352A-U2	←	SML-1351A-U2	←
POWER & DEF PWB	SML-2352A-U2	←	SML-2351A-U2	←
CRT SOCKET PWB	SML-3302A-U2	←	SML-3303A-U2	←

2.3 21-PIN EURO CONNECTOR (SCART) : EXT-1/EXT-2/EXT-3

Pin No.	Signal designation	Matching value	EXT-1	EXT-2	EXT-3
1	AUDIO R output	500mV(rms) (Nominal), Low impedance	Used (TV OUT)	Used (LINE OUT)	Not used
2	AUDIO R input	500mV(rms) (Nominal), High impedance	Used (R1)	Used (R2)	Used (R3)
3	AUDIO L output	500mV(rms) (Nominal), Low impedance	Used (TV OUT)	Used (LINE OUT)	Not used
4	AUDIO GND		Used	Used	Used
5	GND (B)		Used	Used	Used
6	AUDIO L input	500mV(rms) (Nominal), High impedance	Used (L1)	Used (L2)	Used (L3)
7	B input	$700mV_{(B-W)}$, 75Ω	Used	Used	Not used
8	FUNCTION SW (SLOW SW)	Low : 0V-3V High : 8V-12V, High impedance	Used	Used	Used
9	GND (G)		Used	Used	Used
10	SCL / T-V LINK		Not used	Used (SCL2 / TV-LINK)	Not used
11	G input	$700mV_{(B-W)}$, 75Ω	Used	Used	Not used
12	SDA		Not used	Used (SDA2)	Not used
13	GND (R)		Used	Used	Used
14	GND (YS)		Used	Not used	Not used
15	R / C input	R : $700mV_{(B-W)}$, 75Ω C : $300mV_{(P-P)}$, 75Ω	Used (R)	Used (C2/R)	Used (C3)
16	Ys input (FAST SW)	Low : 0V-0.4V, High : 1V-3V, 75Ω	Used	Used	Not used
17	GND (VIDEO output)		Used	Used	Used
18	GND (VIDEO input)		Used	Used	Used
19	VIDEO output	$1V_{(P-P)}$ (Negative sync), 75Ω	Used (TV OUT)	Used (LINE OUT)	Not used
20	VIDEO / Y input	$1V_{(P-P)}$ (Negative sync), 75Ω	Used	Used	Used
21	COMMON GND		Used	Used	Used

(P-P= Peak to Peak, B-W= Blanking to white peak)

[Pin assignment]



2.4 TECHNINAL INFORMATION

2.4.1 MAIN MI-COM (CPU) PIN FUNCTION

Pin No.	Pin name	I/O	Function	Pin No.	Pin name	I/O	Function
1	TCK	I	Not used	65	D2	I/O	Data bit for PP-RAM/SD-RAM
2	TMS	I	Not used	66	D12	I/O	Data bit for PP-RAM/SD-RAM
3	TDI	I	Not used	67	D10	I/O	Data bit for PP-RAM/SD-RAM
4	TDO	O	Not used	68	VSS33	--	GND
5	P2.8	I	Remote control	69	VDD33	i	3.3V
6	P2.9	I	Key scan for front control CH+(On: L)	70	D4	I/O	Data bit for PP-RAM/SD-RAM
7	P2.10	I	Key scan for front control CH- (On: L)	71	D3	I/O	Data bit for PP-RAM/SD-RAM
8	P2.11	I	Key scan for front control MENU (On: L)	72	D11	I/O	Data bit for PP-RAM/SD-RAM
9	P2.12	I	Receive data for TV_LINK	73	RSTIN	I	Reset for main CPU
10	P2.13	O	Power on /off control (ON: L)	74	P3.0	I/O	Data for inter IC control bus
11	P2.14	I	X-ray HB LB EW correction Protection detection (Normal: H)	75	P3.1	I/O	Data for inter IC control bus
12	P2.15	I	Main power detection (Normal: H)	76	P3.2	I	Remote control
13	VSS33	--	GND	77	P3.3	O	Power indication control (On: L)
14	VDD33	i	3.3V	78	P3.4	O	Audio muting (Muting: H)
15	P4.5/CS3	O	Output data for TV_LINK	79	P3.5	O	Audio muting (Muting: H)
16	P4.4/A20	O	Address bit for PP-RAM/SD-RAM	80	P3.6	O	Not used
17	P4.3/A19	O	Address bit for PP-RAM/SD-RAM	81	P3.7	O	Not used
18	P4.2/A18	O	Address bit for PP-RAM/SD-RAM	82	P3.8	I/O	Not used
19	P4.1/A17	O	Address bit for PP-RAM/SD-RAM	83	P3.9	I/O	Not used
20	VSS25	--	GND	84	VSS33	--	GND
21	VDD25	I	2.5V	85	VDD33	I	3.3V
22	P4.0/A16	O	Address bit for PP-RAM/SD-RAM	86	VSS25	--	GND
23	A8	O	Address bit for PP-RAM/SD-RAM	87	VDD25	I	2.5V
24	A7	O	Address bit for PP-RAM/SD-RAM	88	TXD0	I/O	Not used
25	A9	O	Address bit for PP-RAM/SD-RAM	89	RXD0	I/O	Not used
26	A6	O	Address bit for PP-RAM/SD-RAM	90	P3.12	O	Not used
27	A5	O	Address bit for PP-RAM/SD-RAM	91	P3.13	O	Not used
28	A10	O	Address bit for PP-RAM/SD-RAM	92	P3.15	O	Not used
29	A11	O	Address bit for PP-RAM/SD-RAM	93	P5.14	I	Not used
30	A12	O	Address bit for PP-RAM/SD-RAM	94	P5.15	I	Headphone connection detection (Connect: H)
31	VSS33	--	GND	95	TRIG_IN	--	Not used
32	VDD33	i	3.3V	96	TRIG_OUT	--	Not used
33	A4	O	Address bit for PP-RAM/SD-RAM	97	P6.2	O	Notifies bus free state (Stop mode: H)
34	A3	O	Address bit for PP-RAM/SD-RAM	98	P6.3	O	Clock for inter IC control bus
35	A2	O	Address bit for PP-RAM/SD-RAM	99	P6.4	I/O	Data for inter IC control bus
36	A1	O	Address bit for PP-RAM/SD-RAM	100	P6.5	O	MSP reset (Reset: H)
37	A0	O	Address bit for PP-RAM/SD-RAM	101	P6.6	--	Not used
38	A13	O	Address bit for PP-RAM/SD-RAM	102	VSYNC	I	Vertical sync
39	A14/RAS	O	Row address strobe for SD-RAM access	103	HSYNC	I	Horizontal sync
40	A15/CAS	O	Column address strobe for SD-RAM access	104	COR/RSTOUT	O	Output for contrast reduction
41	VSS33	--	GND	105	BLANK/CORBLA	O	Ys for OSD / Teletext (blanking)
42	VDD33	I	3.3V	106	VDD33	I	3.3V
43	MEMCLK	O	Clock for SD-RAM	107	VSS33	--	GND
44	CSSDRAM	O	Chip select signal for SD-RAM device	108	XTAL1	I	System clock (4MHz)
45	CLKEN	O	Enable for memory clock	109	XTAL2	O	System clock (4MHz)
46	CSROM	O	Chip select signal for PP-ROM device	110	VSSA	--	GND
47	RD	O	External memory read strobe for PP-ROM	111	VDDA	I	2.5V
48	UDQM	O	Write disable for high byte	112	R	O	Red for OSD / Teletext
49	LDQM	O	Write disable for low byte	113	G	O	Green for OSD / Teletext
50	WR	O	Memory write strobe	114	B	O	Blue for OSD / Teletext
51	D15	I/O	Data bit for PP-RAM/SD-RAM	115	VSSA	--	GND
52	VSS33	--	GND	116	VDDA	--	2.5V
53	VDD33	I	3.3V	117	CVBS2	I	Composite video for WSS
54	D7	I/O	Data bit for PP-RAM/SD-RAM	118	VSSA	--	GND
55	D0	I/O	Data bit for PP-RAM/SD-RAM	119	VDDA	I	2.5V
56	D14	I/O	Data bit for PP-RAM/SD-RAM	120	CVBS1B	I	Ground for CVBS1A
57	D8	I/O	Data bit for PP-RAM/SD-RAM	121	CVBS1A	I	Composite video for Teletext decorder
58	D6	I/O	Data bit for PP-RAM/SD-RAM	122	VSSA	--	GND
59	D1	I/O	Data bit for PP-RAM/SD-RAM	123	VDDA	I	2.5V
60	VSS33	--	GND	124	P5.0	I	AFC voltage for tuner
61	VDD33	I	3.3V	125	P5.1	--	Not used
62	D13	I/O	Data bit for PP-RAM/SD-RAM	126	P5.2	I	AGC voltage for tuner
63	D9	I/O	Data bit for PP-RAM/SD-RAM	127	P5.3	--	Not used
64	D5	I/O	Data bit for PP-RAM/SD-RAM	128	TMODE	I	Test mode

SECTION 3
DISASSEMBLY

3.1 DISASSEMBLY PROCEDURE

3.1.1 REMOVING THE REAR COVER

(1) Remove the 13 screws **[A]**, then withdraw the REAR COVER toward you.

3.1.2 REMOVING THE SIDE CONTROL JACK ASS'Y

- Remove the REAR COVER.

(1) Remove the 1 screw **[B]** and 2 craw, then remove the SIDE CONTROL JACK ASS'Y.

3.1.3 REMOVING THE SIDE CONTROL PWB

- Remove the REAR COVER.
- Remove the SIDE CONTROL JACK ASSY.

(1) Remove the 2 screws **[C]**, then remove the SIDE CONTROL PWB.

3.1.4 REMOVING THE CHASSIS BASE

- Remove the REAR COVER.

(1) Slightly raise the both sides of the chassis by hand and remove the 2 claws under the both sides of the CHASSIS BASE from the front cabinet.
(2) Withdraw the CHASSIS backward.
(If necessary, take off the wire clamp, connectors etc.)

3.1.5 REMOVING THE AV TERMINAL BOARD

- Remove the REAR COVER.

(1) Remove the 3 screws **[D]**.
(2) Remove the 2 claws under the CHASSIS, then remove the AV TERMINAL BOARD.

3.1.6 REMOVING THE SPEAKER

- Remove the REAR COVER.
- Remove the SIDE CONTROL JACK ASSY.
- Remove the CHASSIS BASE.

(1) Remove the 8 screws **[E]**, then remove the SPEAKER GRILL.
(2) Remove the 2 screws **[F]**, then remove the SPEAKER.
(3) Follow the same steps when removing the other hand MAIN SPEAKER.

3.1.7 CHECKING THE PW BOARD

- To check the back side of the PW Board.

(1) Pull out the CHASSIS BASE. (Refer to REMOVING THE CHASSIS BASE).
(2) Erect the CHASSIS BASE vertically with the HVT side facing up so that you can easily check the back side of the PW board.

CAUTION:

- When erecting the CHASSIS BASE, be careful so that there will be no contacting with other PW Board.
- Before turning on power, make sure that the wire connector is properly connected.
- When conducting a check with power supplied, be sure to confirm that the CRT EARTH WIRE (BRAIDED ASS'Y) is connected to the CRT SOCKET PWB.

3.1.8 WIRE CLAMPING AND CABLE TYING

(1) Be sure to clamp the wire.
(2) Never remove the cable tie used for tying the wires together. Should it be inadvertently removed, be sure to tie the wires with a new cable tie.

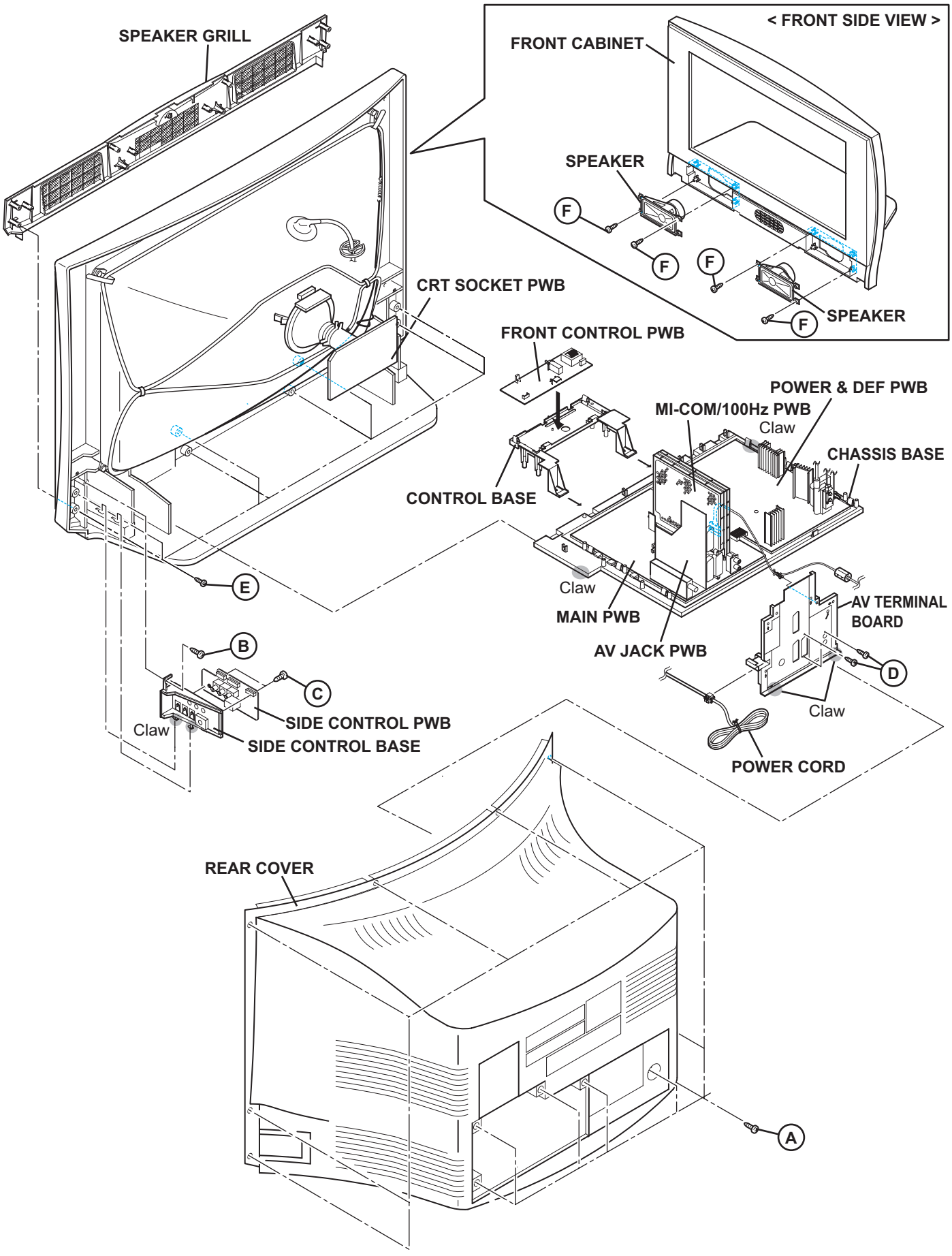

SPEAKER GRILL
< FRONT SIDE VIEW >
FRONT CABINET
SPEAKER
F
F
F
F
SPEAKER
CRT SOCKET PWB
FRONT CONTROL PWB
POWER & DEF PWB
MI-COM/100Hz PWB
Claw
CHASSIS BASE
CONTROL BASE
Claw
MAIN PWB
AV JACK PWB
AV TERMINAL BOARD
D
Claw
POWER CORD
E
B
C
Claw
SIDE CONTROL PWB
SIDE CONTROL BASE
REAR COVER
A

Fig.1

3.1.9 REMOVING THE CRT

NOTE:

- Replacement of the CRT should be performed by 2 or more persons.
- After removing the REAR COVER, CHASSIS etc.,

(1) Putting the CRT change table on soft cloth, the CRT change table should also be covered with such soft cloth (shown in Fig. 2).

(2) While keeping the surface of CRT down, mount the TV set on the CRT change table balanced will as shown in Fig. 2.

(3) Remove 4 screws marked by arrows with a box type screwdriver as shown in Fig. 3.

NOTE:

Since the cabinet will drop when screws have been removed, be sure to support the cabinet with hands.

(4) After 4 screws have been removed, put the cabinet slowly on cloth (At this time, be carefully so as not to damage the front
surface of the cabinet) shown in Fig. 4.

NOTE:

- The CRT should be assembled according to the opposite sequence of its dismounting steps.
- The CRT change table should preferably be smaller that the CRT surface, and its height be about 35cm.

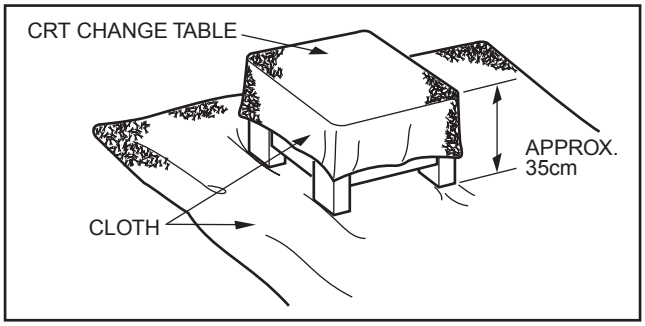


Fig.2

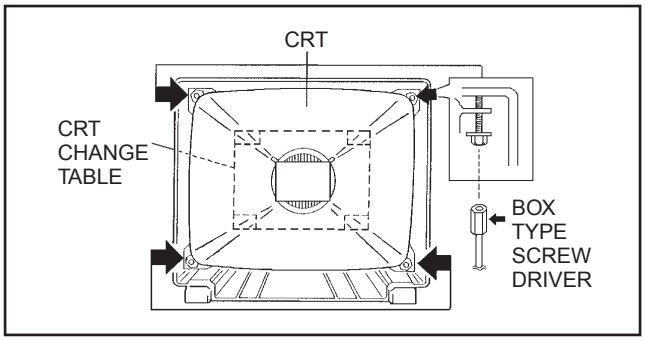


Fig.3

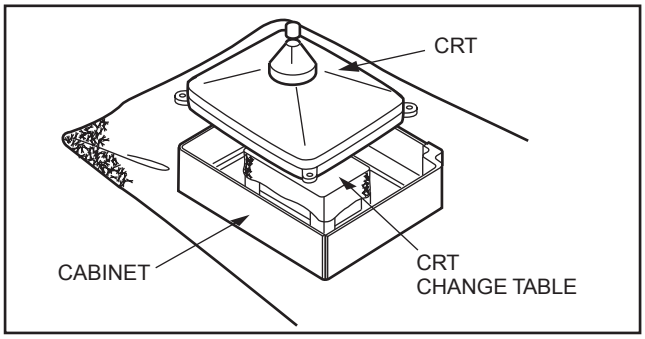


Fig.4

COATING OF SILICON GREASE FOR ELECTRICAL INSULATION ON THE CRT ANODE CAP SECTION.

Subsequent to replacement of the CRT and HV transformer or repair of the anode cap, etc. by dismounting them, be sure to coat silicon grease for electrical insulation as shown in Fig.5.Wipe around the anode button with clean and dry cloth. (Fig.5)Coat silicon grease on the section around the anode button. At this time, take care so that any silicon greases dose not sticks to the anode button. (Fig.6)

Silicon grease product No. KS - 650N

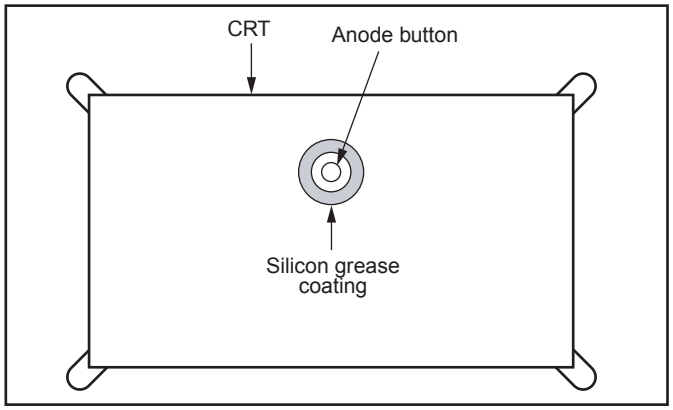


Fig.5

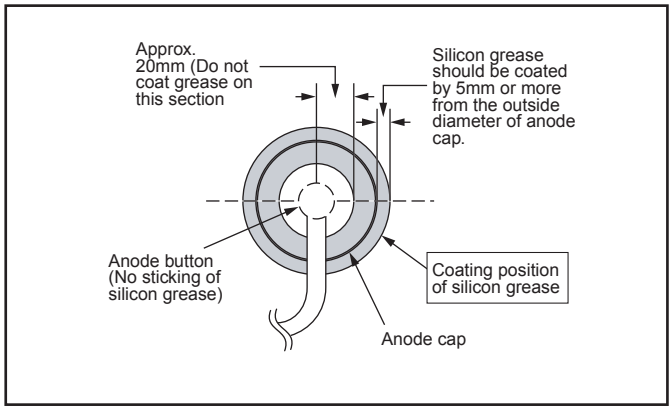


Fig.6

3.2 MEMORY IC REPLACEMENT

- This model uses the memory IC.
- This memory IC stores data for proper operation of the video and drive circuits.
- When replacing, be sure to use an IC containing this (initial value) data.

3.2.1 MEMORY IC REPLACEMENT PROCEDURE

1. Power off
Switch off the power and disconnect the power plug from the AC outlet.

2. Replace the memory IC
Be sure to use the memory IC written with the initial setting values.

3. Power on
Connect the power plug to the AC outlet and switch on the power.

4. System constant check and setting
* It must not adjust without signal.
(1) Press the **[INFORMATION]** key and the **[MUTING]** key of the REMOTE CONTROL UNIT simultaneously.
(2) The SERVICE MENU screen will be displayed (Fig. 1).
(3) While the SERVICE MENU is displayed, press the **[INFORMATION]** key and **[MUTING]** key simultaneously, and the SYSTEM CONSTANT SET screen will be displayed (Fig. 2).
(4) Check the setting values of the SYSTEM CONSTANT SET. If the value is different, select the setting item with the **[FUNCTION ▲ / ▼]** key, and set the correct value with the **[FUNCTION ◀ / ▶]** key.
(5) Press the **[MENU]** key to memorize the setting value.
(6) Press the **[INFORMATION]** key twice, and return to the normal screen.

5. Receiving channel setting
Refer to the OPERATING INSTRUCTIONS and set the receive channels (Channels Preset) as described.

6. User settings
Check the user setting items according to the given in page later. Where these do not agree, refer to the OPERATING INSTRUCTIONS and set the items as described.

7. SERVICE MODE setting
Verify what to set in the SERVICE MODE, and set whatever is necessary (Fig.1). Refer to the SERVICE ADJUSTMENT for setting.

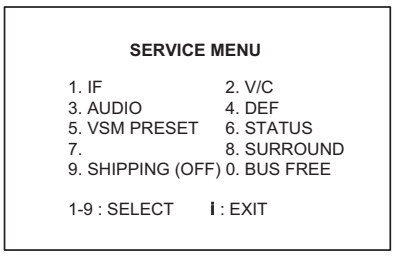


Fig.1

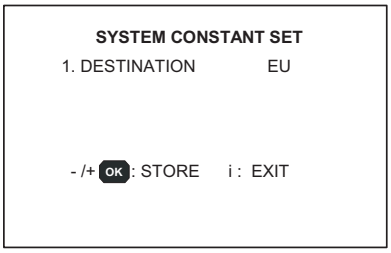
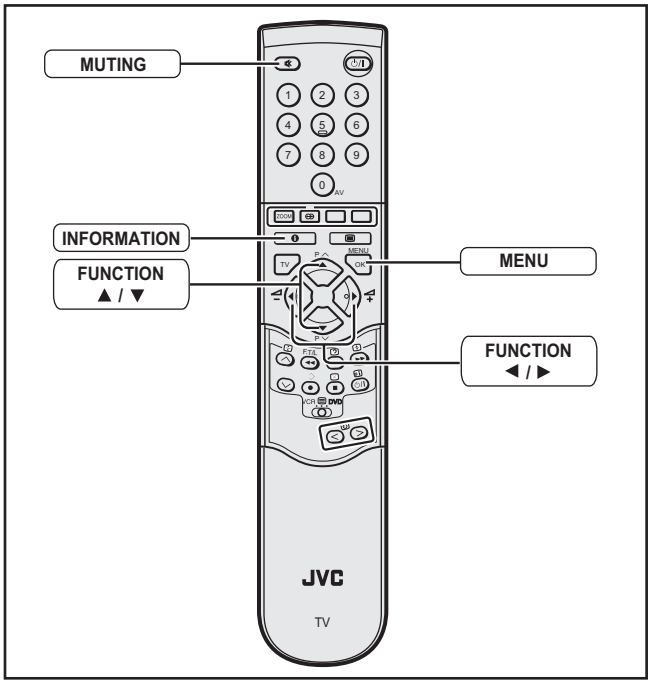


Fig.2



3.2.2 SYSTEM CONSTANT SETTING

Setting item	Setting content	Setting value			
		AV-28X5BU	AV-28X5SU	AV-32X5BU	AV-32X5SU
1.DESTINATION	EU / EK / EI	EU	EU	EU	EU
2.CRT TYPE	16:9 / 4:3	16:9	16:9	16:9	16:9
3.PICTURE TILT	YES / NO	YES	YES	YES	YES
4.POWER BASS	YES / NO	YES	YES	YES	YES
5.SPATIAL SURR	YES / NO	YES	YES	YES	YES
6.PIC&TEXT	YES / NO	YES	YES	YES	YES
7.PROGRESSIVE	YES / NO	YES	YES	YES	YES

3.2.3 SETTINGS OF FACTORY SHIPMENT

3.2.3.1 BUTTON OPERATION

Setting item	Setting position
POWER	Off
CHANNEL	PR1
VOLUME	10

3.2.3.2 REMOTE CONTROL DIRECT OPERATION

Setting item	Setting position
CHANNEL	PR1
VOLUME	10
ZOOM	PANORAMIC
3D CINEMA SOUND	OFF

3.2.3.3 REMOTE CONTROL MENU OPERATION

(1) PICTURE SETTING

Setting item	Setting position
PICTURE MODE	BRIGHT
COLOUR TEMP	COOL

(2) PICTURE FEATURES

Setting item	Setting position
DIGITAL VNR	AUTO
DigiPure Pro	AUTO
COLOUR SYSTEM	TV : According to preset CH
	EXT : AUTO
MOVIE THEATRE	AUTO
4:3 AUTO ASPECT	PANORAMIC
PICTURE TILT	Middle

(3) SOUND SETTING

Setting item	Setting position
STEREO / I•II	Stereo sound
BASS	Centre
TREBLE	Centre
BALANCE	Centre
HYPER SOUND	OFF

(4) 3D CINEMA SOUND

Setting item	Setting position
SURROUND	MID
BASS BOOST	MID

(5) EXT SETTING

Setting item	Setting position
ID	BLANK
S-IN	BLANK
DUBBING	EXT-1 → EXT-2

(6) FEATURES

Setting item	Setting position
SLEEP TIMER	OFF
CHILD LOCK	OFF
BLUE BACK	ON
DECODER (EXT-2)	OFF

(7) INSTALL

Setting item	Setting position
LANGUAGE	ENGLISH
AUTO PROGRAM	TV channel automatically set
EDIT/MANUAL	PRESET CH only
	The others : BLANK

(8) VSM PRESET TABLE

Item	Variable range	Setting value					
		PICTURE MODE			COLOUR TEMP.		
		BRIGHT	STANDARD	SOFT	COOL	NORMAL	WARM
1.CONT	-16~+16	+7	0	-3	---	---	---
2.BRIGHT	-16~+16	0	0	0	---	---	---
3.SHARP	-16~+16	0	0	-2	---	---	---
4.COLOUR	-16~+16	0	0	0	---	---	---
5.HUE	-16~+16	0	0	0	---	---	---
1.WDR R	-64~+63	---	---	---	-15	0	+4
2.WDR G	-64~+63	---	---	---	-9	0	0
3.WDR B	-64~+63	---	---	---	0	0	0

3.2.4 SERVICE MODE SETING ITEMS

Setting item	Setting value	Setting item	Setting value
1. IF	1. VCO 2. ATT ON/OFF	**4. DEF**	1.V-SHIFT 2.V-SIZE 3.H-CENT 4.H-SIZE 5.TRAPEZ 6.EW-PIN 7.COR-UP 8.COR-LO 9.COR-UP-S 10.COR-LO-S 11.ANGLE 12.BOW 13.V-S.CR 14.V-LIN
2. V/C	1.RGB BLK 2.CUTOFF R 3.CUTOFF G 4.CUTOFF B 5.WDR R 6.WDR G 7.WDR B 8.BRIGHT 9.CONTRAST 10.COLOUR 11.HUE 12.SHARP 13.SC ADJ. 14.SIDE.P.L 15.SIDE.P.R	**5. VSM PRESET**	**BRIGHT/SOFT/STANDARD** 1. CONT 2. BRIGHT 3. SHARP 4. COLOUR 5. HUE **COOL/WARM/NORMAL** 1. R DRIVE 2. G DRIVE 3. B DRIVE
3. AUDIO **[Do not adjust]**	1.ERR LIMIT 2.A2 ID THR 3.Q-PEAK 4.SOUND LEV	**6. STATUS** **[Do not adjust]**	1.SOFT 2.TELETEXT 3.ASPECT 4.PROTECT 5.FLASH
		8.SURROUND **[Do not adjust]**	1.CH CONFIG 2.MATRIX 3.REPRODUCTIO 4.CENTRE MODE 5.SPATIAL EFF 6.VIRTUAL EFF 7.BASS EFFECT 8.HARM 9.HPF 10.LPF 11.AMP LIMIT 12.LEVEL ADJU 13.SWC 14.SW HPF 15.VOLUME 16.HYPER EFFE 17.EFFECT MOD 18.HP GAIN
		9.SHIPPING (OFF) **[Do not adjust]**	---

3.3 REPLACEMENT OF CHIP COMPONENT

3.3.1 CAUTIONS

(1) Avoid heating for more than 3 seconds.
(2) Do not rub the electrodes and the resist parts of the pattern.
(3) When removing a chip part, melt the solder adequately.
(4) Do not reuse a chip part after removing it.

3.3.2 SOLDERING IRON

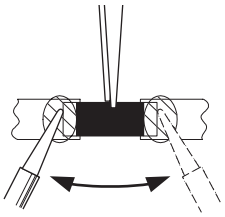
(1) Use a high insulation soldering iron with a thin pointed end of it.
(2) A 30w soldering iron is recommended for easily removing parts.

3.3.3 REPLACEMENT STEPS

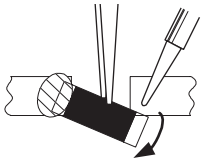
1. How to remove Chip parts

[Resistors, capacitors, etc.]

(1) As shown in the figure, push the part with tweezers and alternately melt the solder at each end.

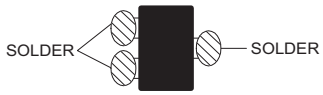


(2) Shift with the tweezers and remove the chip part.

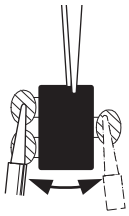


[Transistors, diodes, variable resistors, etc.]

(1) Apply extra solder to each lead.



(2) As shown in the figure, push the part with tweezers and alternately melt the solder at each lead. Shift and remove the chip part.



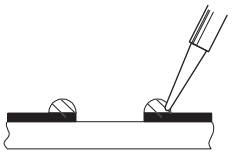
NOTE :

After removing the part, remove remaining solder from the pattern.

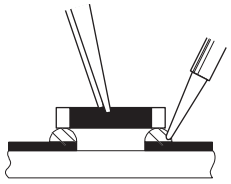
2. How to install Chip parts

[Resistors, capacitors, etc.]

(1) Apply solder to the pattern as indicated in the figure.

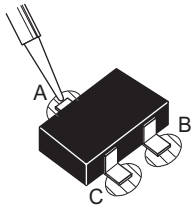


(2) Grasp the chip part with tweezers and place it on the solder. Then heat and melt the solder at both ends of the chip part.

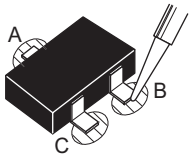


[Transistors, diodes, variable resistors, etc.]

(1) Apply solder to the pattern as indicated in the figure.
(2) Grasp the chip part with tweezers and place it on the solder.
(3) First solder lead **A** as indicated in the figure.



(4) Then solder leads **B** and **C**.



SECTION 4
ADJUSTMENT

4.1 ADJUSTMENT PREPARATION

(1) **There are 2 ways of adjusting this TV : One is with the REMOTE CONTROL UNIT and the other is the conventional method using adjustment parts and components.**
(2) **The adjustment using the REMOTE CONTROL UNIT is made on the basis of the initial setting values. The setting values which adjust the screen to the optimum condition can be different from the initial setting values.**
(3) Make sure that connection is correctly made AC to AC power source.
(4) Turn on the power of the TV and measuring instruments for warming up for at least 30 minutes before starting adjustments.
(5) If the receive or input signal is not specified, use the most appropriate signal for adjustment.
(6) Never touch the parts (such as variable resistors, transformers and condensers) not shown in the adjustment items of this service adjustment.

4.2 PRESET SETTING BEFORE ADJUSTMENT

Unless otherwise specified in the adjustment items, preset the following functions with the REMOTE CONTROL UNIT.

Item	Preset value
PICTURE MODE	STANDARD
CONTRAST / BRIGHT / SHARP / COLOUR / HUE	Centre
COLOUR TEMP	NORMAL
DIGITAL VNR	AUTO
BASS / TREBLE / BALANCE	Centre
HYPER SOUND	OFF
ZOOM	FULL
SLEEP TIMER	OFF

4.3 MEASURING INSTRUMENT AND FIXTURES

(1) DC voltmeter (or digital voltmeter)
(2) Oscilloscope
(3) Signal generator
(Pattern generator : PAL / SECAM / NTSC)
(4) Remote control unit

4.4 ADJUSTMENT ITEMS

■ CHECK ITEM
- B1 VOLTAGE check
- HIGH VOLTAGE check
- IF VCO check

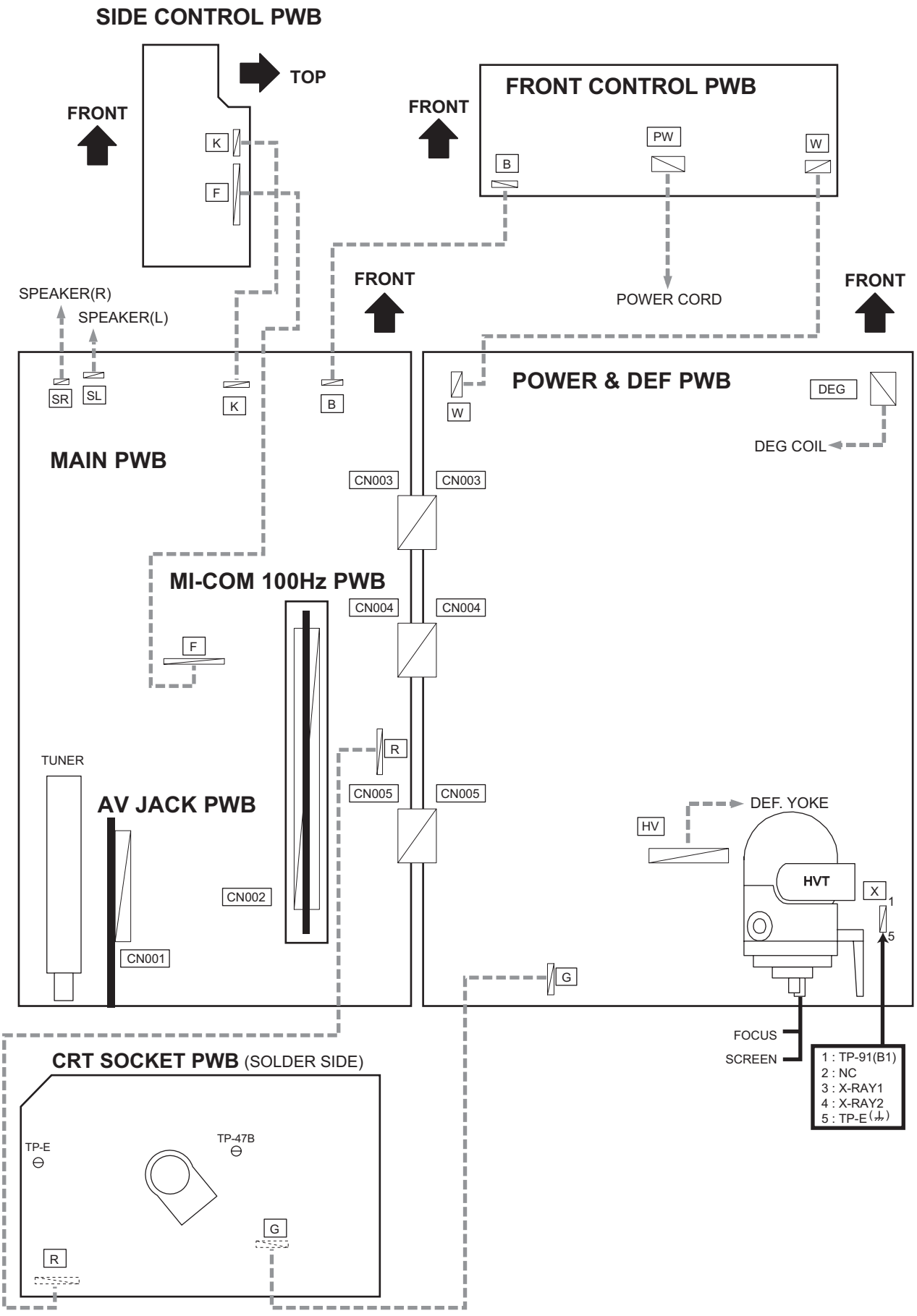
■ FOCUS
- FOCUS adjustment

■ DEFLECTION CIRCUIT
- V. POSITION adjustment
- V. SIZE adjustment
- H. POSITION adjustment
- H. SIZE adjustment
- SIDE-PIN adjustment
- TRAPEZIUM adjustment
- CORNER adjustment
- ANGLE adjustment
- BOW adjustment
- V. S-SHAPE CORRECTION & V.LINEARITY adjustment

■ VIDEO CIRCUIT
- WHITE BALANCE adjustment
- SUB BRIGHT adjustment
- SUB CONTRAST adjustment
- SUB COLOUR adjustment
- SUB HUE adjustment

■ VSM PRESET SETTING
- VSM PRESET setting

4.5 ADJUSTMENT LOCATIONS



4.6 TOOL OF SERVICE MODE OPERATION

Operate the SERVICE MODE with the REMOTE CONTROL UNIT.

4.6.1 SERVICE MODE ITEMS

With the SERVICE MODE, various adjustment can be made, and they are broadly classified in the following items of settings.

1.IF	: This mode adjusts the setting values of the IF circuit.
2.V/C	: This mode adjusts the setting values of the VIDEO circuit.
3.AUDIO	: This mode adjusts the setting values of the MULTI-SOUND circuit. **[Do not adjust]**
4.DEF	: This mode adjusts the setting values of the DEFLECTION circuit.
5.VSM PRESET	: This mode adjusts the setting values of COOL, NORMAL and WARM. (VSM : Video Status Memory)
6.STATUS	: This mode is shows the monitor of SOFT, TELETEXT, ASPECT, PROTECT, FLASH. **[Do not adjust]**
8.SURROUND	: This mode adjusts the setting values of the SURROUND circuit. **[Do not adjust]**
9.SHIPPING (OFF)	: This mode is set at shipping. **[Do not adjust]**
0.BUS FREE	: This mode is set at bus free. **[Do not adjust]**

4.6.2 BASIC OPERATION IN SERVICE MODE

4.6.2.1 HOW TO ENTER THE SERVICE MODE

Press the **[INFORMATION]** key and **[MUTING]** key of the REMOTE CONTROL UNIT simultaneously. Then SERVICE MODE screen will be displayed as shown figure.

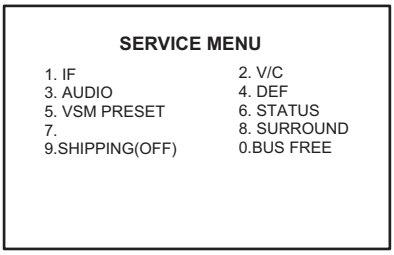


Fig.1

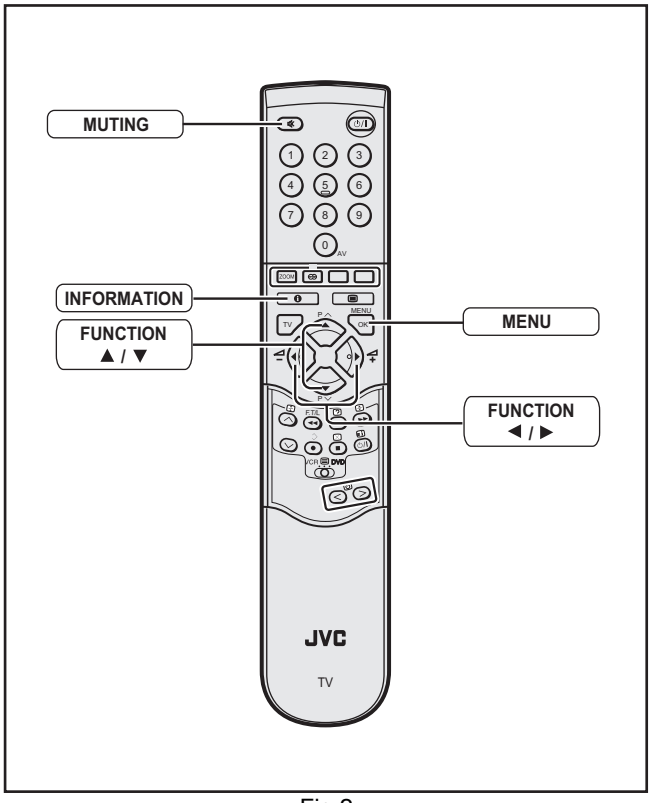


Fig.2

4.6.2.2 SELECTION OF SUB MENU SCREEN

Press one of the CHANNEL number key with the remote control unit, and select the SUB MENU SCREEN from SERVICE MODE.

4.6.2.3 SETTING METHOD

■ **1.IF**

[1. VCO] : It must not adjust without signal

(1) **[1]** key
Select 1.IF.

(2) **[1]** key
Select 1.VCO.
Check the arrow position between the ABOVE REF. and BELOW REF.

(3) **[INFORMATION]** key
Return to the SERVICE MODE main manu screen.

■ **2.V/C, 4.DEF and 5.VSM PRESET**

(1) **[2]**, **[4]** and **[5]**key
Select one from 2.V/C, 4.DEF, 5.VSM PRESET.

(2) **[FUNCTION ▲/▼]** key
Select setting items.

(3) **[FUNCTION ◀ / ▶]** key
Set the setting values of the setting items.

(4) **[MENU]** key
Memorize the setting value.
(Before storing the setting values in memory, do not press the CH, TV, POWER ON / OFF key. if you do, the values will not be stored in memory.)

(5) **[INFORMATION]** key
Return to the SERVICE MODE main manu screen.

■ **3.AUDIO, 6.STATUS, 8.SURROUND and 9.SHIPPING (OFF)**
It is not requirement to adjustment.

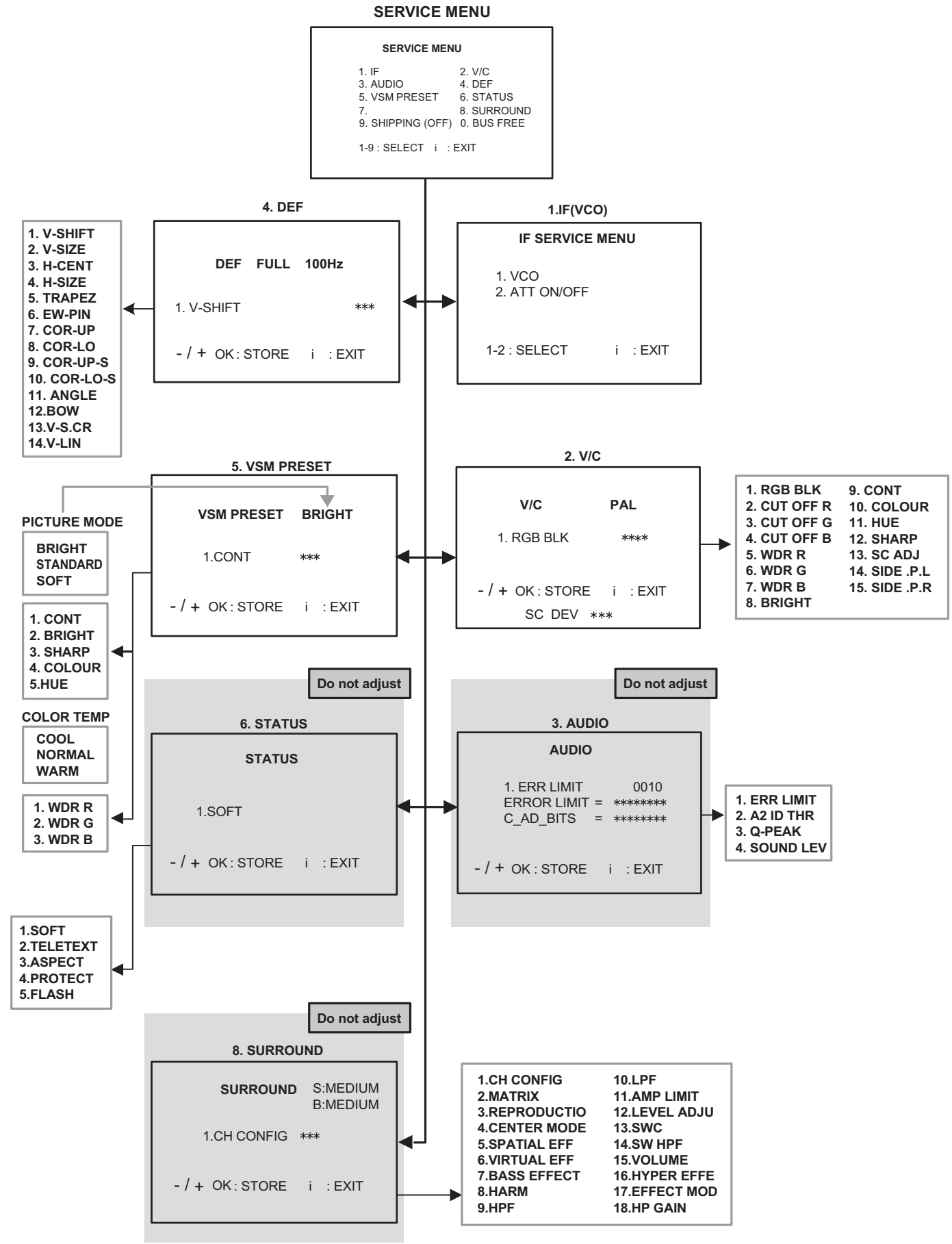
4.6.2.4 MEMORIZE THE ADJUSTMENT DATA

When adjustment is completed, press the **[MENU]** key to memorize the adjustment value. If not to do it, adjustment data is not memorized to the memory IC. And if exit the adjustment mode before memorize the data, the adjustment value which you change is canceled.

4.6.2.5 RELEASE OF SERVICE MODE

After completing the setting, return to the SERVICE MODE, then again press the **[INFORMATION]** key.

4.6.3 SERVICE MODE FLOW CHART



4.7 INITIAL SETTING VALUE OF SERVICE MODE

(1) Adjustment of the SERVICE MODE is made on the basis of the initial setting values. However, the new setting values which displays on the screen in its optimum condition may differ from the initial setting value.
(2) Do not change the initial setting values of the items not listed in “ADJUSTMENT PROCEDURE”.
(3) “---” is impossible to adjust or not requirement to adjustment.

4.7.1 [2. V/C]

Setting item	Variable range	Initial setting value			
		PAL	SECAM	NTSC 3.58	NTSC 4.43
1.RGB BLK	---	---	---	---	---
2.CUTOFF R	0000 - 0255	0100	0100	0100	0100
3.CUTOFF G	0000 - 0255	0132	0132	0132	0132
4.CUTOFF B	0000 - 0255	0124	0124	0124	0124
5.WDR R	0000 - 0255	0165	0165	0165	0165
6.WDR G	0000 - 0255	0135	0135	0135	0135
7.WDR B	0000 - 0255	0150	0150	0150	0150
8.BRIGHT	-128 - 0127	-030	-030	-030	-030
9.CONTRAST	0000 - 0063	0040	0040	0040	0040
10.COLOUR	0000 - 0063	0036	0031	0025	[0000]
11.HUE	-064 - 0063	---	---	0002	[0000]

NOTE: [ ] is fixed values.

Setting item	Variable range	Initial setting value							
		PAL		SECAM		NTSC 3.58		NTSC 4.43	
		TV	EXT	TV	EXT	TV	EXT	TV	EXT
12.SHARP	-015 - 0015	[-002]	[0000]	[-002]	[0000]	[-002]	[0000]	[-002]	[0000]

NOTE: [ ] is fixed values.

Setting item	Variable range	Initial setting value			
		PAL	SECAM	NTSC 3.58	NTSC 4.43
13.SC ADJ.	0000 - 0063	0018	---	---	---

Setting item	Variable range	Initial setting value							
		PAL		SECAM		NTSC 3.58		NTSC 4.43	
		REGULAR	14:9 ZOOM	REGULAR	14:9 ZOOM	REGULAR	14:9 ZOOM	REGULAR	14:9 ZOOM
14.SIDE .P.L	0000 - 1295	343	289	343	289	348	295	348	295
15.SIDE .P.R	0000 - 1295	1089	1142	1089	1142	1103	1155	1103	1155

4.7.2 [3. AUDIO] [Do not adjust]

Setting item	Variable range	Fixed value
1. ERR LIMIT	0000H - 0FF0H	0010H
2. A2 ID THR	0000H - 00FFH	0019H
3. Q-PEAK	---	---
4. SOUND LEV	---	---

4.7.3 [4. DEFLECTION] [AV-28X5BU, AV-28X5SU]

Setting item	Variable range	Initial setting value							
		FULL		PANORAMIC		SUBTITLE		COMPRESS	
		100Hz i	60Hz p	100Hz i	60Hz p	100Hz i	60Hz p	100Hz i	60Hz p
1. V-SHIFT	-032 - 0031	0000	0000	0000	0000	0000	0000	[0000]	[0000]
2. V-SIZE	-064 - 0063	-025	0000	0000	0000	0000	0000	[-040]	[0000]
3. H-CENT	-128 - 0127	-014	0000	0000	0000	0000	0000	[0000]	[0000]
4. H-SIZE	-128 - 0127	0035	0000	0000	0000	0000	0000	[0000]	[0000]
5. TRAPEZ	-064 - 0064	-005	0000	0000	0000	0000	0000	[0000]	[0000]
6. EW-PIN	-128 - 0127	-035	0000	0000	0000	0000	0000	[0000]	[0000]
7. COR-UP	-064 - 0064	-005	0000	0000	0000	0000	0000	[0000]	[0000]
8. COR-LO	-064 - 0064	-005	0000	0000	0000	0000	0000	[0000]	[0000]
9. COR-UP-S	-064 - 0064	0000	0000	0000	0000	0000	0000	[0000]	[0000]
10. COR-LO-S	-064 - 0064	0000	0000	0000	0000	0000	0000	[0000]	[0000]
11.ANGLE	-128 - 0127	0000	0000	0000	0000	0000	0000	[0000]	[0000]
12.BOW	-128 - 0127	0000	0000	0000	0000	0000	0000	[0000]	[0000]
13.V-S.CR	-064 - 0063	0003	0000	[0005]	[0000]	[0000]	[0000]	[0000]	[0000]
14.V-LIN	-064 - 0063	0000	0000	[-003]	[0000]	[0000]	[0000]	[0000]	[0000]

NOTE: [ ] is fixed values.

4.7.4 [4. DEFLECTION] [AV-32X5BU, AV-32X5SU]

Setting item	Variable range	Initial setting value							
		FULL		PANORAMIC		SUBTITLE		COMPRESS	
		100Hz i	60Hz p	100Hz i	60Hz p	100Hz i	60Hz p	100Hz i	60Hz p
1. V-SHIFT	-032 - 0031	0000	0000	0000	0000	0000	0000	[0000]	[0000]
2. V-SIZE	-064 - 0063	-033	0000	0000	0000	0000	0000	[-040]	[0000]
3. H-CENT	-128 - 0127	-014	0000	0000	0000	0000	0000	[0000]	[0000]
4. H-SIZE	-128 - 0127	0035	-003	0000	0000	0000	0000	[0000]	[0000]
5. TRAPEZ	-064 - 0064	-005	0000	0000	0000	0000	0000	[0000]	[0000]
6. EW-PIN	-128 - 0127	-035	0000	0000	0000	0000	0000	[0000]	[0000]
7. COR-UP	-064 - 0064	0000	0000	0000	0000	0000	0000	[0000]	[0000]
8. COR-LO	-064 - 0064	0000	0000	0000	0000	0000	0000	[0000]	[0000]
9. COR-UP-S	-064 - 0064	0000	0000	0000	0000	0000	0000	[0000]	[0000]
10. COR-LO-S	-064 - 0064	0000	0000	0000	0000	0000	0000	[0000]	[0000]
11.ANGLE	-128 - 0127	0000	0000	0000	0000	0000	0000	[0000]	[0000]
12.BOW	-128 - 0127	0000	0000	0000	0000	0000	0000	[0000]	[0000]
13.V-S.CR	-064 - 0063	0003	0000	[0005]	[0000]	[0000]	[0000]	[0000]	[0000]
14.V-LIN	-064 - 0063	0000	0000	[0000]	[0000]	[0000]	[0000]	[0000]	[0000]

NOTE: [ ] is fixed values.

4.7.5 [5. VSM PRESET]

Item	Variable range	Setting value					
		PICTURE MODE			COLOUR TEMP.		
		BRIGHT	STANDARD	SOFT	COOL	NORMAL	WARM
1.CONT	-16 - +16	+7	0	-3	---	---	---
2.BRIGHT	-16 - +16	0	0	0	---	---	---
3.SHARP	-16 - +16	0	0	-2	---	---	---
4.COLOUR	-16 - +16	0	0	0	---	---	---
5.HUE	-16 - +16	0	0	0	---	---	---
1.WDR R	-64 - +63	---	---	---	-15	0	+4
2.WDR G	-64 - +63	---	---	---	-9	0	0
3.WDR B	-64 - +63	---	---	---	0	0	0

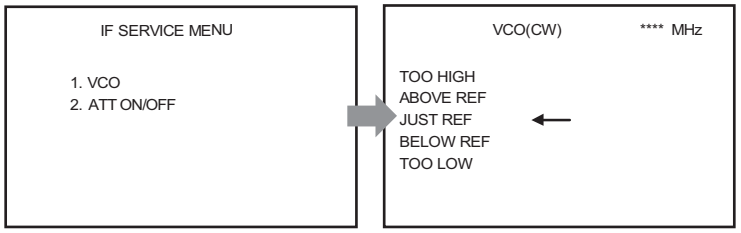
4.7.6 [8.SURROUND] [Do not adjust]

Setting item	Variable range	Initial setting value
1.CH CONFIG	0000 - 0001	0001
2.MATRIX	0000 - 0127	0016
3.REPRODUCTIO	0000 - 0015	0006
4.CENTRE MODE	0000 - 0015	0003
5.SPATIAL EFF	0000 - 0127	0058
6.VIRTUAL EFF	0000 - 0127	0052
7.BASS EFFECT	0000 - 0127	0046
8.HARM	0000 - 0127	0000
9.HPF	0002 - 0030	0010
10.LPF	0005 - 0030	0009
11.AMP LIMIT	-032 - 0000	-006
12.LEVEL ADJU	-128 - 0012	0000
13.SWC	0005 - 0040	0021
14.SW HPF	0000 - 0003	0018
15.VOLUME	0000 - 0003	0003
16.HYPER EFFE	0000 - 0127	0063
17.EFFECT MOD	0000 - 0002	0000
18.HP GAIN	0000 - 0008	0008

4.8 ADJUSTMENT PROCEDURE

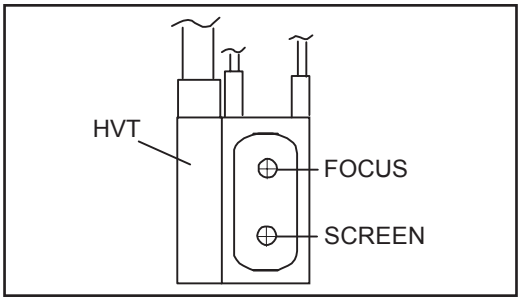
4.8.1 CHECK ITEM

Item	Measuring instrument	Test point	Adjustment part	Description
B1 VOLTAGE	DC voltmeter Remote control unit	X connector 1-pin:TP-91(B1) 5-pin:TP-E **[POWER & DEF PWB]**	[2.V/C] 1.RGB BLK	(1) Receive the any broadcast. (2) Select **2. V/C** from the SERVICE MODE. (3) Select **< 1. RGB BLK >**. (4) Press the **[FUNCTION ▸]** key to find the cut off screen (Black screen). (5) Connect a DC voltmeter to **1-pin** and **5-pin** of X connector. (6) Make sure that the voltage is **DC139V** ± **2.0V**. (7) Press the **[FUNCTION ◂]** key to return to SERVICE MODE.
HIGH VOLTAGE	HV voltmeter Remote control unit	CRT anode Chassis GND	[2.V/C] 1.RGB BLK	(1) Receive the any broadcast. (2) Select **2. V/C** from the SERVICE MODE. (3) Select **< 1. RGB BLK >**. (4) Press the **[FUNCTION ▸]** key to find the cut off screen (Black screen). (5) Connect the HV voltmeter to CRT ANODE and chassis GND. (Ground side is connected previously) (6) Make sure that the voltage is **DC 31.0kV (+1kV/-1.5kV)**. (7) Press the **[FUNCTION ◂]** key to return to SERVICE MODE. **NOTE:** Remove the probe before removing the earth clip.
IF VCO	Remote control unit		[1.IF] 1.VCO	• Under normal conditions, no adjustment is required. • It must not adjust without broadcast signal. (1) Receive the any broadcast. (2) Select **1.IF** from the SERVICE MODE. (3) Select **< 1.VCO >**. (4) Check the "←" position between the ABOVE REF. and BELOW REF.



4.8.2 FOCUS

Item	Measuring instrument	Test point	Adjustment part	Description
FOCUS	Signal generator		FOCUS VR **[In HVT]**	(1) Receive the crosshatch signal. (2) Set the ZOOM mode to FULL. (3) While looking at the screen, adjust the FOCUS VR to the vertical and horizontal lines will be clear and infine detail. (4) Make sure that the picture is in focus even when the screen gets darkened.



4.8.3 DEFLECTION CIRCUIT

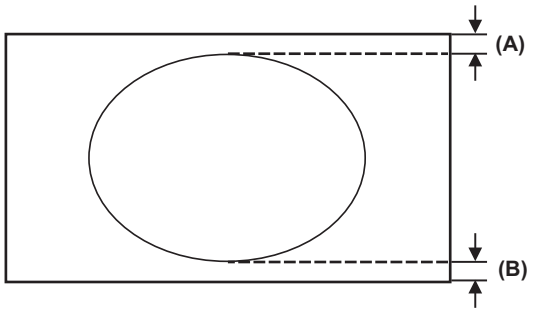
There are 3 aspect modes (1.**FULL**, 2.**PANORAMIC**, 3.**SUBTITLE**) of the adjustment.
Depending upon the kind of signals (Vertical frequency 100Hz i / 60Hz p).
100Hz i is a signal that is output to a screen when a 50Hz signal is input to a television set. It is an interlace-scanned picture of 100Hz.

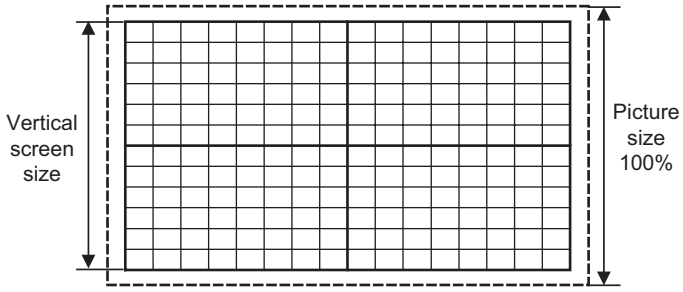
- **When the 100Hz FULL mode has been established, the setting of other modes will be done automatically. However, if the picture quality has not been optimized, adjust each mode again, respectively.**
- **The adjustment using the remote control unit is made on the basis of the initial setting values.**
- **The setting values which adjust the screen to the optimum condition can be different from the initial setting values.**
- **To switch aspect modes, use the [ZOOM] key of the remote controller.**

NOTE :

- Do not adjust PANORAMIC & SUBTITLE mode.
- At first the adjustment in 100Hz FULL mode should be done, then the data for the other aspect mode is corrected in the respective value at the same time. And confirm the deflection adjustment initial setting value in 60Hz (NTSC EXT mode) FULL mode. If the adjustment in 100Hz each aspect mode has been done and stored, the data for the same aspect modes in 60Hz is corrected in the respective value. Only the data for the other aspect mode in 60Hz is corrected for itself.

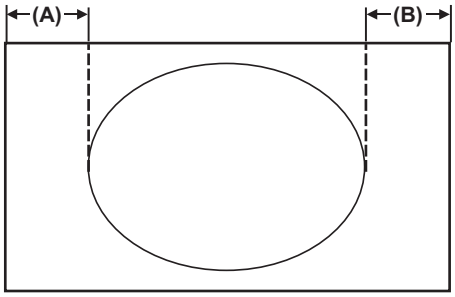
<table>
<tr><th>Item</th><th>Measuring instrument</th><th>Test point</th><th>Adjustment part</th><th>Description</th></tr>
<tr><td>V. POSITION</td><td>Signal generator

Remote control unit</td><td></td><td>[4.DEF]
1.V- SHIFT</td><td rowspan="2">(1) Receive the circle pattern signal of vertical frequency 50Hz (PAL).
(2) Set the ZOOM mode to FULL.
(3) Select 4.DEF from the SERVICE MODE.
(4) Set the initial setting value of < 1.V-SHIFT >.
(5) Adjust vertical position to make A = B.
(6) Check the adjustment value above in other zoom mode. If it is a wrong adjustment, readjust in FULL mode and adjust by < 1.V-SHIFT >.
(7) Press the [MENU] key to memorize the set value.</td></tr>
<tr><td colspan="4"> 
</td></tr>
<tr><td>V. SIZE</td><td>Signal generator

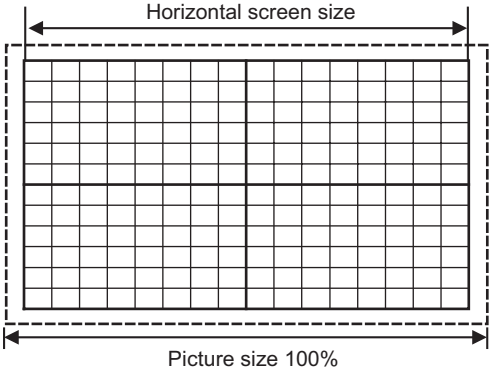
Remote control unit</td><td></td><td>[4.DEF]
2.V-SIZE</td><td rowspan="2">(1) Receive the cross hatch signal.
(2) Set the ZOOM mode to FULL.
(3) Select 4.DEF from the SERVICE MODE.
(4) Set the initial setting value of < 2.V-SIZE >.
(5) Adjust to make sure that the vertical screen size of the picture size is in the bellow table.
(6) Make sure that the vertical screen size of the each ASPECT mode is in the below table.
(7) Press the [MENU] key to memorize the set value.
(8) Input a NTSC VIDEO signal (60Hz) from the EXT terminal, and make sure that the vertical screen size is in the table below.</td></tr>
<tr><td colspan="4"> 
</td></tr>
</table>

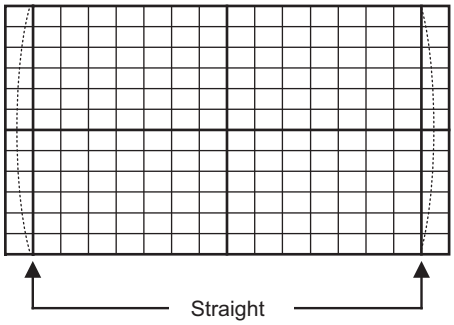
ASPECT MODE	FULL	PANORAMIC	SUBTITLE
SCREEN TOP	93%	87%	70%
SCREEN BOTTOM	93%	87%	83%

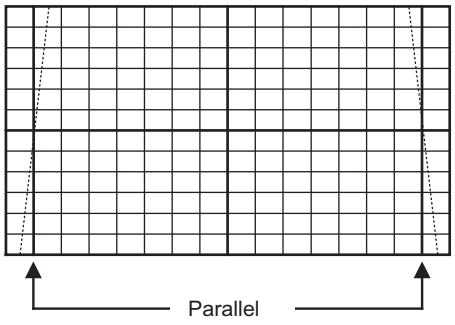
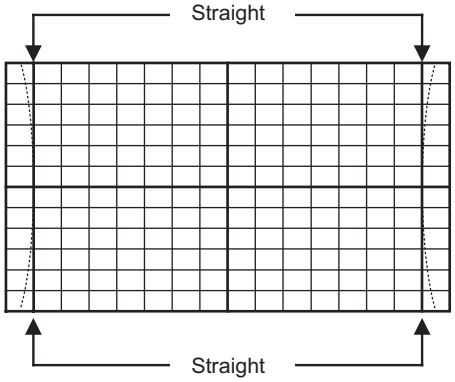
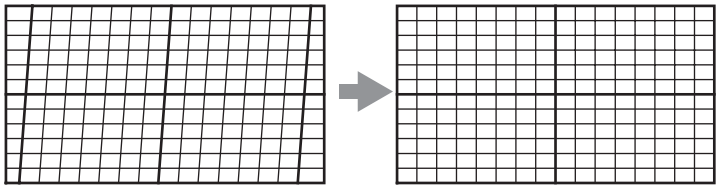
<table>
<tr><th>Item</th><th>Measuring instrument</th><th>Test point</th><th>Adjustment part</th><th>Description</th></tr>
<tr><td>H. POSITION</td><td>Signal generator

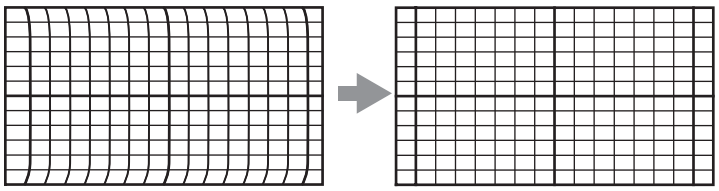
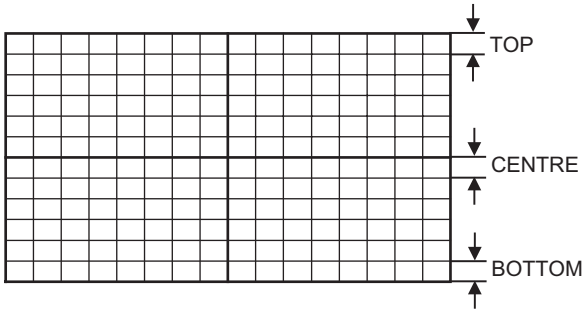
Remote control unit</td><td></td><td>[4.DEF]
3.H-CENT</td><td rowspan="2">(1) Receive the circle pattern signal.
(2) Set the ZOOM mode to FULL.
(3) Select 4.DEF from the SERVICE MODE.
(4) Set the initial setting value of < 3.H-CENT >.
(5) Adjust horizontal position to make A=B.
(6) Press the [MENU] key to memorize the set value.</td></tr>
<tr><td colspan="4"> 
</td></tr>
<tr><td>H. SIZE</td><td>Signal generator

Remote control unit</td><td></td><td>[4.DEF]
4.H-SIZE</td><td rowspan="2">(1) Receive the cross hatch signal.
(2) Set the ZOOM mode to FULL.
(3) Select 4.DEF from the SERVICE MODE.
(4) Set the initial setting value of < 4.H-SIZE >.
(5) Adjust to make sure that the horizontal screen size of the picture size is in the bellow table.
(6) Make sure that the horizontal screen size of the each ASPECT mode is in the below table.
(7) Press the [MENU] key to memorize the set value.
(8) Input a NTSC VIDEO signal (60Hz) from the EXT terminal, and make sure that the horizontal screen size is in the table below.

<table><tr><th>ASPECT MODE</th><th>FULL</th><th>PANORAMIC</th><th>SUBTITLE</th></tr><tr><td>SCREEN SIZE</td><td>92%</td><td>95%</td><td>92%</td></tr></table></td></tr>
<tr><td colspan="4"> 
</td></tr>
<tr><td>SIDE-PIN</td><td>Signal generator

Remote control unit</td><td></td><td>[4.DEF]
6.EW-PIN</td><td rowspan="2">(1) Receive the cross hatch signal.
(2) Set the ZOOM mode to FULL.
(3) Select 4.DEF from the SERVICE MODE.
(4) Set the initial setting value of < 6.EW-PIN >.
(5) Adjust to make the vertical lines at the right and left edges of the screen straight. Also make sure that the 3rd vertical lines are straight.
(6) Press the [MENU] key to memorize the set value.</td></tr>
<tr><td colspan="4"> 
</td></tr>
</table>

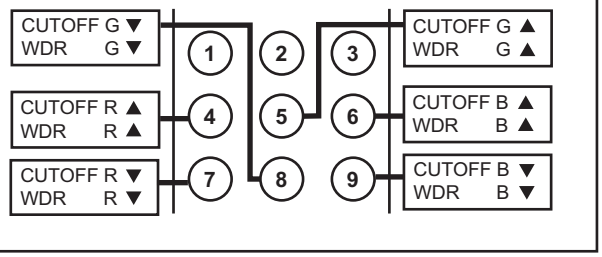
Item	Measuring instrument	Test point	Adjustment part	Description
TRAPEZIUM	Signal generator Remote control unit		[4.DEF] 5.TRAPEZ	(1) Receive the cross hatch signal. (2) Set the ZOOM mode to FULL. (3) Select **4.DEF** from the SERVICE MODE. (4) Set the initial setting value of **< 5.TRAPEZ >**. (5) Adjust to bring the vertical lines at the right and left edges of the screen parallel. (6) Press the **[MENU]** key to memorize the set value.
				
CORNER	Signal generator Remote control unit		[4.DEF] 7.COR-UP 8.COR-LO 9.COR-US-S 10.COR-LO-S	(1) Receive the cross hatch signal. (2) Set the ZOOM mode to FULL. (3) Select **4.DEF** from the SERVICE MODE. (4) Set the initial setting value of **< 7.COR.-UP >**. (5) Adjust to bring the straight line at the upper corner. (6) Set the initial setting value of **< 8.COR-LO >**. (7) Adjust to bring the straight line at the lower corner. (8) Press the [MENU] key to memorize the set value. (9) If the extreame upper & lower corners are a little pin or barrel chose **< 9.COR-UP-S >** or **< 10. COR-LO-S >** and adjust. (10) Press the **[MENU]** key to memorize the set value.
				
ANGLE	Signal generator Remote control unit		[4.DEF] 11. ANGLE	• In case where there is a parallelogrammical distortion of images on the screen. (1) Receive the cross hatch signal. (2) Set the ZOOM mode to FULL. (3) Select **4.DEF** from the SERVICE MODE. (4) Set the initial setting value of **< 11. ANGLE >**. (5) Adjust to bring the vertical lines straight. (6) Press the **[MENU]** key to memorize the set value.
				

Item	Measuring instrument	Test point	Adjustment part	Description
BOW	Signal generator Remote control unit		[4.DEF] 12.BOW	• In case where there is a bow-shaped distortion of images on the screen. (1) Receive the cross hatch signal. (2) Set the ZOOM mode to FULL. (3) Select **4.DEF** from the SERVICE MODE. (4) Set the initial setting value of **< 12. BOW >**. (5) Adjust to bring the vertical lines straight. (6) Press the **[MENU]** key to memorize the set value.
				
V. S-SHAPE CORRECTION & V. LINEARITY	Signal generator Remote control unit		[4.DEF] 13.V.S-CR 14.V.LIN	• When the vertical linearity has been deteriorated remarkably, perform the following steps. (1) Receive the cross hatch signal. (2) Set the ZOOM mode to FULL. (3) Select **4.DEF** from the SERVICE MODE. (4) Set the initial setting value of **< 13.V.S-CR >**. (5) Set the initial setting value of **< 14.V.LIN >**. (6) Adjust **< 13.V.S-CR >** and **< 14.V.LIN >** so that the spaces of each line on top, centre and bottom become uniform. (7) Press the **[MENU]** key to memorize the set value.
				

4.8.4 VIDEO CIRCUIT

Item	Measuring instrument	Test point	Adjustment part	Description
WHITE BALANCE	Signal generator Remote control unit		[2. V/C] 2.CUTOFF R 3.CUTOFF G 4.CUTOFF B 5.WDR R 6.WDR G	(1) Receive a black and white signal (colour off). (2) Set the ZOOM mode to FULL. (3) Set the PICTURE MODE to STANDARD. (4) Set the COLOUR TEMP to NORMAL. (5) Select **2.V/C** from the SERVICE MODE. (6) Each select **2.CUTOFF R**, **3.CUTOFF G**, **4.CUTOFF B** and adjust the screen until the black portion in the screen becomes black. (7) Each select **5.WDR R**, **6.WDR G** and adjust the screen until the white portion in the screen becomes white. **NOTE:**Do not adjust 7. WDR B (8) Press the **[MENU]** key to memorize the set value. (9) Change the contrast and brightness from low-light to high-light and check that the tracking of the white balance is good.
SUB BRIGHT	Remote control unit		[2. V/C] 8. BRIGHT	(1) Receive the any broadcast. (2) Set the ZOOM mode to FULL. (3) Set the PICTURE mode to STANDARD. (4) Select **2.V/C** from the SERVICE MODE. (5) Set the initial setting value of **< 8.BRIGHT >**. (6) If the brightness is not the best with the initial setting value, make fine adjustment until you get the best brightness. (7) Press the **[MENU]** key to memorize the set value.
SUB CONTRAST	Remote control unit		[2. V/C] 9. CONT.	(1) Receive the any broadcast. (2) Set the ZOOM mode to FULL. (3) Set the PICTURE mode to STANDARD. (4) Select **2.V/C** from the SERVICE MODE. (5) Set the initial setting value of **< 9.CONT >**. (6) If the contrast is not the best with the initial setting value, make fine adjustment until you get the best contrast. (7) Press the **[MENU]** key to memorize the set value.

REMOTE CONTROL UNIT KEY



<table>
<tr><th>Item</th><th>Measuring instrument</th><th>Test point</th><th>Adjustment part</th><th>Description</th></tr>
<tr><td rowspan="2">SUB COLOUR</td><td>Signal generator

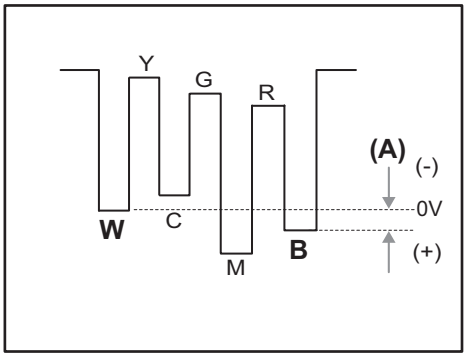
Remote control unit</td><td></td><td>[2.V/C]
10.COLOUR</td><td rowspan="2">Method of adjustment without measuring instrument
PAL COLOUR
(1) Receive PAL broadcast.
(2) Set the ZOOM mode to FULL.
(3) Set the PICTURE mode to STANDARD.
(4) Select 2.V/C from the SERVICE MODE.
(5) Set the initial setting value of < 10.COLOUR >.
(6) If the colour is not the best with the initial set value, make fine adjustment until you get the best colour.
(7) Press the [MENU] key to memorize the set value.

SECAM COLOUR
(1) Receive the SECAM broadcast.
(2) Follow the same step 2 to 7 as in PAL COLOUR.

NTSC 3.58 COLOUR
(1) Input the NTSC 3.58MHz signal from the EXT terminal.
(2) Follow the same step 2 to 7 as in PAL COLOUR.

NTSC 4.43 COLOUR
(1) When NTSC 3.58 COLOUR set, NTSC 4.43 COLOUR will automatically set.</td></tr>
<tr><td>Signal generator

Oscilloscope

Remote control unit</td><td>TP-47B
TP-E
[CRT SOCKET PWB]</td><td>[2.V/C]
10.COLOUR</td></tr>
<tr><td colspan="4"> 

<table>
<tr><th rowspan="2">Setting item</th><th colspan="3">Adjustment value</th></tr>
<tr><th>PAL</th><th>SECAM</th><th>NTSC</th></tr>
<tr><td>VOLTAGE (W-B)</td><td>+11V</td><td>+7V</td><td>+7V</td></tr>
</table></td><td>Method of adjustment using measuring instrument
PAL COLOUR
(1) Receive the PAL full field colour bar signal (75% white).
(2) Set the ZOOM mode to FULL.
(3) Set the PICTURE mode to STANDARD.
(4) Select 2.V/C from the SERVICE MODE.
(5) Set the initial setting value of <10.COLOUR >.
(6) Connect the oscilloscope between TP-47B and TP-E.
(7) Adjust < 10. COLOUR > and bring the value of (A) in the illustration into the value shown in the table.
(8) Press the [MENU] key to memorize the set value.

SECAM COLOUR
(1) Receive the SECAM colour bar signal (75% white).
(2) Follow the same step 2 to 8 as in PAL COLOUR.

NTSC 3.58 COLOUR
(1) Input the NTSC 3.58MHz signal (full field colour bar with 75% white) from the EXT terminal.
(2) Follow the same step 2 to 8 as in PAL COLOUR.

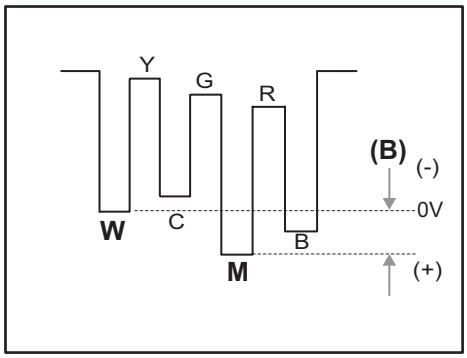
NTSC 4.43 COLOUR
(1) When NTSC 3.58 COLOUR set, NTSC 4.43 COLOUR will automatically set.</td></tr>
</table>

<table>
<tr><th>Item</th><th>Measuring instrument</th><th>Test point</th><th>Adjustment part</th><th>Description</th></tr>
<tr><td rowspan="2">SUB HUE</td><td>Signal generator

Remote control unit</td><td></td><td>[2.V/C]
11.HUE</td><td rowspan="2">Method of adjustment without measuring instrument
NTSC 3.58 HUE
(1) Input the NTSC 3.58MHz COMPOSITE VIDEO signal (full field colour bar with 75% white) from the EXT terminal.
(2) Set the ZOOM mode to FULL.
(3) Set the PICTURE mode to STANDARD.
(4) Select 2.V/C from the SERVICE MODE.
(5) Set the initial setting value of < 11. HUE >.
(6) If you cannot get the best hue with the initial setting value, make fine adjustment until you get the best hue.
(7) Press the [MENU] key to memorize the set value.

NTSC 4.43 HUE
(1) When NTSC 3.58 HUE is set, NTSC 4.43 HUE will be automatically set at the respective values.</td></tr>
<tr><td>Signal generator

Oscilloscope

Remote control unit</td><td>TP-47B
TP-E
[CRT SOCKET PWB]</td><td>[2.V/C]
11.HUE</td></tr>
<tr><td colspan="4"> 

<table>
<tr><th>Setting item</th><th>Adjustment value</th></tr>
<tr><td>VOLTAGE (W-M)</td><td>-7V</td></tr>
</table></td><td>Method of adjustment using measuring instrument
NTSC 3.58 HUE
(1) Input the NTSC 3.58MHz signal (full field colour bar with 75% white) from the EXT terminal.
(2) Set the ZOOM mode to FULL.
(3) Set the PICTURE mode to STANDARD.
(4) Select 2.V/C from the SERVICE MODE.
(5) Set the initial setting value of < 11. HUE >.
(6) Connect the oscilloscope between TP-47B and TP-E.
(7) Adjust < 11. HUE > and bring the value of (B) in the illustration into the value shown in the table.
(8) Press the [MENU] key to memorize the set value.

NTSC 4.43 HUE
(1) When NTSC 3.58 HUE set, NTSC 4.43 HUE will automatically set.</td></tr>
</table>

4.8.5 VSM PRESET SETTING

Item	Measuring instrument	Test point	Adjustment part	Description
VSM PRESET	Remote control unit		[5. VSM PRESET] 1. CONT 2. BRIGHT 3. SHARP 4. COLOUR 5. HUE 1. WDR R 2. WDR G 3. WDR B	(1) Select **5. VSM PRESET** from the SERVICE MODE. (2) Set the PICTURE MODE to BRIGHT. (3) Select **< 1.CONT >**. (4) Set the initial setting value of PICTURE MODE, as shown in the below table. (5) Press the **[MENU]** key to memorize the set value. (6) Select **< 2.BRIGHT >** to **< 5.HUE >** in turn, and set the values. (7) Respectively select the "SOFT" and "STANDARD". Make similar adjustment as same step as above. (8) Set the COLOUR TEMP to COOL. (9) Select **< 1.WDR R >**. (10) Set the initial setting value of COLOUR TEMP., as shown in the below table. (11) Press the **[MENU]** key to memorize the set value. (12) Select **< 2.WDR G >** and **< 3.WDR B>** in turn, and set values. (13) Respectively select the "WARM" and "NORMAL". Make similar adjustment as same step as above.

■ **VSM PRESET TABALE**

Item	Variable range	Setting value					
		PICTURE MODE			COLOUR TEMP.		
		BRIGHT	STANDARD	SOFT	COOL	NORMAL	WARM
1.CONT	-16 - +16	+7	0	-3	---	---	---
2.BRIGHT	-16 - +16	0	0	0	---	---	---
3.SHARP	-16 - +16	0	0	-2	---	---	---
4.COLOUR	-16 - +16	0	0	0	---	---	---
5.HUE	-16 - +16	0	0	0	---	---	---
1.WDR R	-64 - +63	---	---	---	-15	0	+4
2.WDR G	-64 - +63	---	---	---	-9	0	0
3.WDR B	-64 - +63	---	---	---	0	0	0

SECTION 5
TROUBLESHOOTING

5.1 SELF CHECK FUNCTIONS

5.1.1 OUTLINE

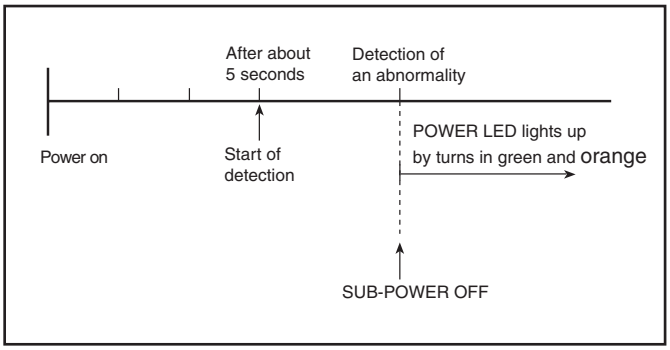
These models have self-check functions given below. When an abnormality has been detected, the SUB POWER is turned off and POWER LED lights up by turns in green and orange. An abnormality is detected by the signal input state of the control line connected to the microcomputer.

5.1.2 SELF CHECK ITEMS

Check item	Details of detection	Method of detection	State of abnormality
Low B short protection	A short on the low B (12V, 9V, 5V, 3.3V, 2.5V) line is detected.	The protect port on the microcomputer (11pin) is always monitored at 150msec intervals. If an abnormality is detected nine time successively, it is judged that there is an abnormality.	When an abnormality has detected, the SUB POWER is turned off and POWER LED lights up by turns in green and orange. While the SUB POWER is being turned off, the POWER key on the remote control unit is not operational until the power cord is taken out and put in again.
CRT neck broken protection	Operation of CRT neck broken protection circuit. (Vertical amplitude is detected.)	DITTO	DITTO

5.1.3 SELF CHECK INDICATING FUNCTION

When an abnormality has been detected at about 5 seconds after the power is turned on, the SUB POWER is turned off immediately and the POWER LED lights up by turns in green and orange.



JVC

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(No.YA262)

Printed in Japan
VPT

PARTS LIST

CAUTION

- The parts identified by the ⚠ symbol are important for the safety . Whenever replacing these parts, be sure to use specified ones to secure the safety.
- The parts not indicated in this Parts List and those which are filled with lines --- in the Parts No. columns will not be supplied.
- P.W. BOARD Ass'y will not be supplied, but those which are filled with the Parts No. in the Parts No. columns will be supplied.

ABBREVIATIONS OF RESISTORS, CAPACITORS AND TOLERANCES

RESISTORS	
CR	Carbon Resistor
FR	Fusible Resistor
PR	Plate Resistor
VR	Variable Resistor
HV R	High Voltage Resistor
MF R	Metal Film Resistor
MG R	Metal Glazed Resistor
MP R	Metal Plate Resistor
OM R	Metal Oxide Film Resistor
CMF R	Coating Metal Film Resistor
UNF R	Non-Flammable Resistor
CH V R	Chip Variable Resistor
CH MG R	Chip Metal Glazed Resistor
COMP. R	Composition Resistor
LPTC R	Linear Positive Temperature Coefficient Resistor

CAPACITORS	
C CAP.	Ceramic Capacitor
E CAP.	Electrolytic Capacitor
M CAP.	Mylar Capacitor
CH CAP.	Chip Capacitor
HV CAP.	High Voltage Capacitor
MF CAP.	Metalized Film Capacitor
MM CAP.	Metalized Mylar Capacitor
MP CAP.	Metalized Polystyrol Capacitor
PP CAP.	Polypropylene Capacitor
PS CAP.	Polystyrol Capacitor
TF CAP.	Thin Film Capacitor
MPP CAP.	Metalized Polypropylene Capacitor
TAN. CAP.	Tantalum Capacitor
CH C CAP.	Chip Ceramic Capacitor
BP E CAP.	Bi-Polar Electrolytic Capacitor
CH AL E CAP.	Chip Aluminum Electrolytic Capacitor
CH AL BP CAP.	Chip Aluminum Bi-Polar Capacitor
CH TAN. E CAP.	Chip Tantalum Electrolytic Capacitor
CH AL BP E CAP.	Chip Tantalum Bi-Polar Electrolytic Capacitor

RESISTORS									
F	G	J	K	M	N	R	H	Z	P
±1%	±2%	±5%	±10%	±20%	±30%	+30% -10%	+50% -10%	+80% -20%	+100% -0%

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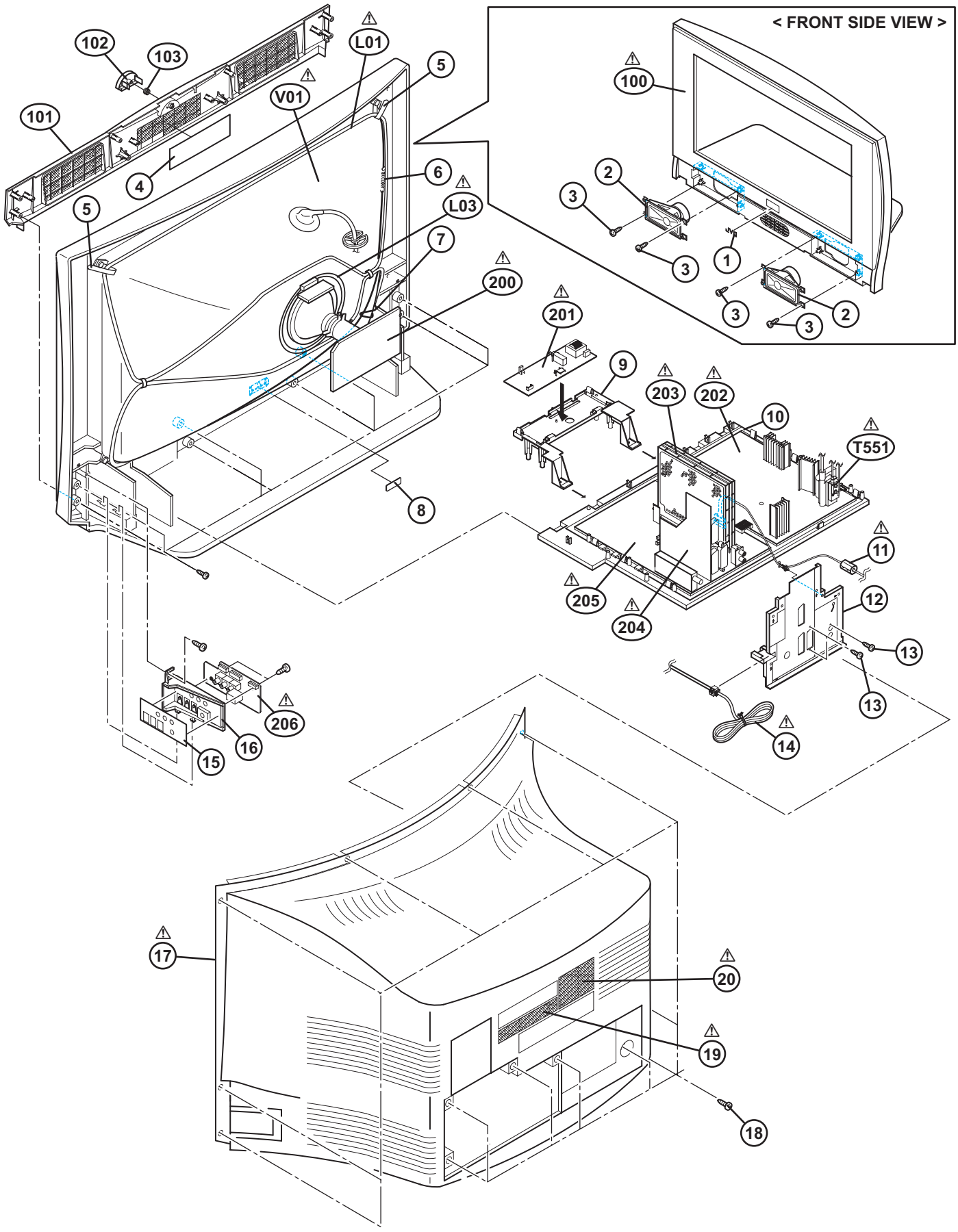
USING P.W. BOARD & REMOTE CONTROL UNIT

P.W.B ASS'Y	AV-28X5BU	AV-28X5SU	AV-32X5BU	AV-32X5SU
MAIN P.W.B	SML-1352A-U2	←	SML-1351A-U2	←
POWER & DEF P.W.B	SML-2352A-S2	←	SML-2351A-S2	←
CRT SOCKET P.W.B	SML-3302A-U2	←	SML-3303A-U2	←
SIDE CONTROL P.W.B	SML-8132A-U2	←	←	←
FRONT CONTROL P.W.B	SML-8301A-U2	←	←	←
AV JACK P.W.B	SML0J301A-U2	←	←	←
100HZ P.W.B	SML0Z351A-U2	←	←	←
REMOTE CONTROL UNIT	RM-C64H-1C	←	←	←

EXPLODED VIEW PARTS LIST

⚠	Ref.No.	Part No.	Part Name	Description	Local
⚠	V01	W66QDE993X996	ITC	inc.DEF YOKE/PC MAGNET	AV-28X5BU,AV-28X5SU
⚠	V01	W76ERF112X044	ITC	inc.DEF YOKE/PC MAGNET	AV-32X5BU,AV-32X5SU
⚠	L01	QQW0168-002	DEG COIL		AV-28X5BU,AV-28X5SU
⚠	L01	QQW0169-001	DEG COIL		AV-32X5BU,AV-32X5SU
⚠	L03	QQW0130-001	ROTATION COIL		AV-28X5BU,AV-28X5SU
⚠	T551	QQH0181-001	FB TRANSF		
	1	LC41852-001A	JVC MARK ASSY		
	2	QAS0200-001	SPEAKER	SP01/SP02(x2)	
	3	QYSBSAG4016NA	TAP SCREW	M4 x 16mm(x4)	
	4	AEM3029-030-E	STICK SHEET		AV-28X5BU,AV-32X5BU,AV-32X5SU
	4	AEM3029-030-E	STICK SHEET		AV-28X5SU
	5	LC30628-002A	DEG CLAMP	(x4)	
	6	WJY0021-001B	BRAIDED ASSY		AV-28X5BU
	6	WJY0021-001B-E	BRAIDED ASSY		AV-28X5SU
	6	WJY0021-002B	BRAIDED ASSY		AV-32X5BU
	6	WJY0021-002B-E	BRAIDED ASSY		AV-32X5SU
	7	WJY0013-002A	BRAIDED ASSY		AV-28X5BU,AV-32X5BU
	7	WJY0013-002A-E	BRAIDED ASSY		AV-28X5SU,AV-32X5SU
	8	LC32570-001C-C	WINDOW		
	9	LC11795-003B-U	CONTROL BASE		AV-28X5BU,AV-28X5SU
	9	LC11795-004B-U	CONTROL BASE		AV-32X5BU,AV-32X5SU
	10	LC10716-002J-U	CHASSIS BASE		
⚠	11	QQR0491-001	FERRITE CORE		
	12	LC11561-001B-U	AV TERMINAL BOARD		
	13	QYSBSF3012MA	TAP SCREW	M3 x 12mm(x3)	
⚠	14	QMPK160-185-JC	POWER CORD(EU)	1.85m BLACK	
	15	LC32584-001A-C	CONTROL SHEET		
	16	LC11825-002B-U	SIDE CONTROL BASE		
⚠	17	LC11707-001C-U	REAR COVER		AV-28X5BU,AV-28X5SU
⚠	17	LC11770-001B-U	REAR COVER		AV-32X5BU,AV-32X5SU
	18	QYSBSAG4016NA	TAP SCREW	M4 x 16mm(x13)	
⚠	19	LC12098-008A-U	RATING LABEL		AV-28X5BU
⚠	19	LC12098-007A-U	RATING LABEL		AV-28X5SU
⚠	19	LC12097-005A-U	RATING LABEL		AV-32X5BU
⚠	19	LC12097-004A-U	RATING LABEL		AV-32X5SU
⚠	20	LC30789-002B-U	WARNING LABEL		
⚠	100	LC11831-007A-U	FRONT CABINET ASSY	Inc. 101 - 103	AV-28X5BU,AV-32X5BU
⚠	100	LC11831-003A-U	FRONT CABINET ASSY	Inc. 101 - 103	AV-28X5SU
⚠	100	LC11832-003B-U	FRONT CABINET ASSY	Inc. 101 - 103	AV-32X5SU
	101	LC21424-001B-U	SPEAKER PANEL		AV-28X5BU,AV-28X5SU
	101	LC11744-001B-U	SPEAKER PANEL		AV-32X5BU,AV-32X5SU
	102	LC32569-001B-U	POWER KNOB		
	103	LC32668-001A	SPRING		
⚠	200	SML-3302A-U2	CRT SOCKET PWB		AV-28X5BU,AV-28X5SU
⚠	200	SML-3303A-U2	CRT SOCKET PWB		AV-32X5BU,AV-32X5SU
⚠	201	SML-8301A-U2	FRONT CONTROL PWB		
⚠	202	SML-2352A-S2	POWER & DEF PWB		AV-28X5BU,AV-28X5SU
⚠	202	SML-2351A-S2	POWER & DEF PWB		AV-32X5BU,AV-32X5SU
⚠	203	SML0Z351A-U2	100HZ PWB		
⚠	204	SML0J301A-U2	AV JACK PWB		
⚠	205	SML-1352A-U2	MAIN PWB		AV-28X5BU,AV-28X5SU
⚠	205	SML-1351A-U2	MAIN PWB		AV-32X5BU,AV-32X5SU
⚠	206	SML-8132A-U2	SIDE CONTROL PWB		

EXPLODED VIEW



PRINTED WIRING BOARD PARTS LIST [AV-28X5BU, AV-28X5SU]

MAIN P.W. BOARD ASS'Y (SML-1352A-U2)

⚠Ref No.	Part No.	Part Name	Description	Local
IC101	MSP3411GQAC1201	IC		
IC201	CXA2089Q-X	IC		
IC501	LM324D-X	IC		
IC551	LA6515	IC		
IC601	HA17558AF-X	IC		
IC651	AN5277	IC		
IC681	BH3544F-X	IC		
IC701	ATE32-28X5BU	IC	(SERVICE)	
IC901	AN78L08-T	IC		
IC902	MM1565AF-X	IC		
Q001	2SC3928A/QR/-X	TRANSISTOR		
Q002	2SC3928A/QR/-X	TRANSISTOR		
Q101	UN2213-X	DIGI TRANSISTOR		
Q201	2SC3928A/QR/-X	TRANSISTOR		
Q202	2SC3928A/QR/-X	TRANSISTOR		
Q207	UN2226-X	DIGI TRANSISTOR		
Q210	2SA1530A/QR/-X	TRANSISTOR		
Q211	UN2226-X	DIGI TRANSISTOR		
Q212	2SA1530A/QR/-X	TRANSISTOR		
Q213	UN2226-X	DIGI TRANSISTOR		
Q214	UN2226-X	DIGI TRANSISTOR		
Q215	KTA1267/YG/-T	TRANSISTOR		
Q216	2SC3928A/QR/-X	TRANSISTOR		
Q217	KTC3199/YG/-T	TRANSISTOR		
Q218	UN2226-X	DIGI TRANSISTOR		
Q219	UN2226-X	DIGI TRANSISTOR		
Q305	KTC3199/YG/-T	TRANSISTOR		
Q501	2SC3928A/QR/-X	TRANSISTOR		
Q502	2SC3928A/QR/-X	TRANSISTOR		
Q621	2SA1530A/QR/-X	TRANSISTOR		
Q623	UN2226-X	DIGI TRANSISTOR		
Q624	UN2226-X	DIGI TRANSISTOR		
Q628	UN2213-X	DIGI TRANSISTOR		
Q629	2SC3928A/QR/-X	TRANSISTOR		
Q632	2SA1530A/QR/-X	TRANSISTOR		
Q641	2SA1530A/QR/-X	TRANSISTOR		
Q642	UN2226-X	DIGI TRANSISTOR		
Q643	UN2226-X	DIGI TRANSISTOR		
Q681	UN2226-X	DIGI TRANSISTOR		
Q701	2SA1530A/QR/-X	TRANSISTOR		
Q702	2SC3928A/QR/-X	TRANSISTOR		
D201	MA8120/M/-X	Z DIODE		
D202	MA8120/M/-X	Z DIODE		
D203	MA8120/M/-X	Z DIODE		
D204	MA8120/M/-X	Z DIODE		
D205	MA8120/M/-X	Z DIODE		
D206	MA8120/M/-X	Z DIODE		
D207	MA8120/M/-X	Z DIODE		
D208	MA8120/M/-X	Z DIODE		
D209	MA8120/M/-X	Z DIODE		
D210	MA8120/M/-X	Z DIODE		
D211	MA8120/M/-X	Z DIODE		
D212	MA8120/M/-X	Z DIODE		
D501	MA111-X	SI DIODE		
D502	MA111-X	SI DIODE		
D503	MA111-X	SI DIODE		
D504	MA111-X	SI DIODE		
D623	MA111-X	SI DIODE		
D624	MA111-X	SI DIODE		
D626	MA111-X	SI DIODE		
D627	MA111-X	SI DIODE		
D629	MA111-X	SI DIODE		
D630	MA111-X	SI DIODE		
D631	MA111-X	SI DIODE		
D633	MA111-X	SI DIODE		
D651	MA8330/L/-X	Z DIODE		
D653	MA8330/L/-X	Z DIODE		
D681	MA111-X	SI DIODE		
D701	MA8056/M/-X	Z DIODE		
D702	MA8056/M/-X	Z DIODE		
D703	MA8056/M/-X	Z DIODE		
D704	MA8056/M/-X	Z DIODE		
D705	MA111-X	SI DIODE		
D981	MA111-X	SI DIODE		
D982	MA111-X	SI DIODE		
C001	NCB31HK-222X	C CAPACITOR	2200pF 50V K	
C002	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C004	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C005	QETN1CM-108Z	E CAPACITOR	1000uF 16V M	
C006	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C007	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C008	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C009	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C010	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C011	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C012	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C013	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C101	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C102	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C103	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C104	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C105	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C106	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C117	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C118	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C119	NDC31HJ-2R0X	C CAPACITOR	2pF 50V J	
C120	NDC31HJ-2R0X	C CAPACITOR	2pF 50V J	
C121	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C122	NDC31HJ-102X	C CAPACITOR	1000pF 50V J	
C123	NDC31HJ-102X	C CAPACITOR	1000pF 50V J	
C124	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C125	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C126	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C127	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C128	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C130	NDC31HJ-102X	C CAPACITOR	1000pF 50V J	
C131	NDC31HJ-102X	C CAPACITOR	1000pF 50V J	
C201	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C202	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C203	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C204	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C205	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C206	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C207	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C209	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C210	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C213	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C215	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C216	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C220	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C221	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C222	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C223	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C224	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C225	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C226	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C227	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C228	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C229	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C230	QENC1EM-106Z	BP E CAPACITOR	10uF 25V M	
C231	QENC1EM-106Z	BP E CAPACITOR	10uF 25V M	
C232	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C233	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C234	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C235	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C236	QETN1CM-477Z	E CAPACITOR	470uF 16V M	
C237	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C238	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C239	QETN1CM-477Z	E CAPACITOR	470uF 16V M	
C303	QETN1CM-227Z	E CAPACITOR	220uF 16V M	
C304	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C308	NCB31CK-224X	C CAPACITOR	0.22uF 16V K	
C309	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C310	NCB31CK-224X	C CAPACITOR	0.22uF 16V K	
C503	NDC31HJ-102X	C CAPACITOR	1000pF 50V J	
C504	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C505	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C506	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C507	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C508	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C509	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C510	NCB31EK-333X	C CAPACITOR	0.033uF 25V K	
C515	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C551	NCF31CZ-224X	C CAPACITOR	0.22uF 16V Z	
C552	NCF31CZ-224X	C CAPACITOR	0.22uF 16V Z	
C553	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C554	NCF31CZ-224X	C CAPACITOR	0.22uF 16V Z	
C555	NCF31CZ-224X	C CAPACITOR	0.22uF 16V Z	
C561	NDC31HJ-390X	C CAPACITOR	39pF 50V J	
C601	QENC1HM-105Z	BP E CAPACITOR	1uF 50V M	
C602	QENC1HM-105Z	BP E CAPACITOR	1uF 50V M	
C603	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C604	NCB31HK-153X	C CAPACITOR	0.015uF 50V K	

⚠Ref No.	Part No.	Part Name	Description Local
C605	NCB31HK-122X	C CAPACITOR	1200pF 50V K
C606	NCB31HK-153X	C CAPACITOR	0.015uF 50V K
C607	NCB31HK-122X	C CAPACITOR	1200pF 50V K
C608	NCB31HK-223X	C CAPACITOR	0.022uF 50V K
C609	NCB31HK-223X	C CAPACITOR	0.022uF 50V K
C610	QENC1CM-106Z	BP E CAPACITOR	10uF 16V M
C611	QENC1CM-106Z	BP E CAPACITOR	10uF 16V M
C623	QETN1EM-108Z	E CAPACITOR	1000uF 25V M
C641	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C642	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C643	NCB31HK-102X	C CAPACITOR	1000pF 50V K
C644	NCB31HK-102X	C CAPACITOR	1000pF 50V K
C650	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C651	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C652	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C654	QETN1HM-107Z	E CAPACITOR	100uF 50V M
C657	QETM1VM-228	E CAPACITOR	2200uF 35V M
C663	QETN1EM-108Z	E CAPACITOR	1000uF 25V M
C664	QETN1EM-108Z	E CAPACITOR	1000uF 25V M
C666	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C681	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C682	QETN1CM-337Z	E CAPACITOR	330uF 16V M
C683	QETN1CM-337Z	E CAPACITOR	330uF 16V M
C684	QENC1HM-105Z	BP E CAPACITOR	1uF 50V M
C685	QENC1HM-105Z	BP E CAPACITOR	1uF 50V M
C686	QETN1CM-476Z	E CAPACITOR	47uF 16V M
C688	NCB31HK-222X	C CAPACITOR	2200pF 50V K
C689	NCB31HK-222X	C CAPACITOR	2200pF 50V K
C691	NCB31HK-102X	C CAPACITOR	1000pF 50V K
C692	NCB31HK-102X	C CAPACITOR	1000pF 50V K
C701	NCB31HK-104X	C CAPACITOR	0.1uF 50V K
C702	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C711	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C901	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C902	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C903	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C904	NCF31AZ-105X	C CAPACITOR	1uF 10V Z
C905	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C906	NCB20JK-225X	C CAPACITOR	2.2uF 6.3V K
C907	NDC31HJ-471X	C CAPACITOR	470pF 50V J
R002	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R003	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R004	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R005	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R006	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R007	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R008	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R009	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J
R010	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J
R011	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R101	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R102	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R105	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R201	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R202	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R205	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R206	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R208	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R209	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R210	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R211	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R212	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R213	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R214	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R215	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R216	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R217	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R218	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R219	MA8120/M/-X	Z DIODE	
R220	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J
R221	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J
R222	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R226	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J
R227	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J
R228	MA8120/M/-X	Z DIODE	
R229	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R232	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R233	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R234	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R235	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R236	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R237	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R238	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R239	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R240	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R241	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R242	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R243	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R244	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R245	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R246	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R247	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R249	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R251	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J
R252	MA8120/M/-X	Z DIODE	
R253	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J
R255	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R258	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R259	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R260	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R261	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R262	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R263	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R264	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R265	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R266	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R267	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R268	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R269	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R270	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R271	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R272	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R273	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R274	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R275	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R276	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R277	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R278	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R279	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R280	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R281	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R282	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R283	QRG01GJ-101	OMF RESISTOR	100Ω 1W J
R284	QRK126J-181X	UNF C RESISTOR	180Ω 1/2W J
R285	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R286	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R287	QRK126J-151X	UNF C RESISTOR	150Ω 1/2W J
R288	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R289	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R290	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R291	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R292	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R293	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R296	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J
R297	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J
R298	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J
R311	QRK126J-391X	UNF C RESISTOR	390Ω 1/2W J
R312	NRSA63J-680X	MG RESISTOR	68Ω 1/16W J
R313	QRK126J-391X	UNF C RESISTOR	390Ω 1/2W J
R314	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
R315	NRSA63J-680X	MG RESISTOR	68Ω 1/16W J
R316	QRE141J-563Y	C RESISTOR	56kΩ 1/4W J
R317	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J
R501	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R502	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R503	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R504	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R505	NRSA63J-124X	MG RESISTOR	120kΩ 1/16W J
R506	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R507	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J
R509	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R510	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J
R511	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R512	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J
R513	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R514	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J
R515	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R516	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R517	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R518	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R519	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R520	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R521	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R523	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J
R524	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J
R525	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
R526	NRSA63J-683X	MG RESISTOR	68kΩ 1/16W J
R527	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J
R528	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R529	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R530	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J
R531	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R532	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J

⚠Ref No.	Part No.	Part Name	Description	Local
R533	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J	
R536	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J	
R537	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R551	NRSA63J-124X	MG RESISTOR	120kΩ 1/16W J	
R552	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J	
R553	NRSA63J-683X	MG RESISTOR	68kΩ 1/16W J	
R554	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R555	NRSA63J-154X	MG RESISTOR	150kΩ 1/16W J	
R556	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R557	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J	
R558	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R559	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	
R560	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R601	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	
R602	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	
R603	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R604	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R605	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R606	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R607	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R608	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R609	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R610	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R611	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R612	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R613	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R621	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R623	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R624	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R629	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R631	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R632	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J	
R635	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J	
R637	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R638	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J	
R641	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R642	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J	
R643	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J	
R644	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R645	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R650	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R651	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R652	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R653	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R654	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R655	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R657	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R661	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J	
R673	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R681	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R682	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R683	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R684	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R685	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R688	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R689	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R702	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R703	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R704	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R705	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R706	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R707	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R708	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R709	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R710	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
L001	QQL244K-270Z	PEAKING COIL	27uH K	
L002	QQL244K-100Z	PEAKING COIL	10uH K	
L003	QQL244K-100Z	PEAKING COIL	10uH K	
L101	QRN143J-0R0X	C RESISTOR	0Ω 1/4W J	
L102	QQL244K-4R7Z	PEAKING COIL	4.7uH K	
CN001	QGB1505J1-35	CONNECTOR	B-B (1-35)	
CN003	QGB1506L1-16	CONNECTOR	B-B (1-16)	
CN004	QGB1506L1-16	CONNECTOR	B-B (1-16)	
CN005	QGB1506L1-16	CONNECTOR	B-B (1-16)	
CN00B	QJK002-041614	SIN CR C-B WIRE		
J001	QNN0596-001	PIN JACK	AUDIO OUT	
K001	NQR0389-003X	FERRITE BEADS		
K101	NQR0389-003X	FERRITE BEADS		
K102	NQR0389-003X	FERRITE BEADS		
K551	QQR0621-002Z	FERRITE BEADS		
K552	QQR0621-002Z	FERRITE BEADS		
K641	NQR0199-001X	FERRITE BEADS		
K642	NQR0199-001X	FERRITE BEADS		
LC101	NQR0431-001X	EMI FILTER	0.22uF 50V Z	
⚠TU001	QAU0276-002	TUNER		

⚠Ref No.	Part No.	Part Name	Description	Local
X101	QAX0773-001Z	CRYSTAL	18.432000MHz	

POWER & DEF P.W. BOARD ASS'Y (SML-2352A-S2)

⚠Ref No.	Part No.	Part Name	Description	Local
IC401	LA78041	IC		
IC461	LM393P	IC		
IC901	STR-F6254/F7	IC		
⚠IC941	QAL0515-001	POWER TRANSF		
IC951	SE140N	IC		
IC962	L7809CP	IC		
IC963	PQ120RDA1SZ	IC		
Q461	RDN050N20	POWER MOS FET		
Q462	KTC3199/YG/-T	TRANSISTOR		
Q463	KTC3199/YG/-T	TRANSISTOR		
Q464	KTA1267/YG/-T	TRANSISTOR		
Q481	DTC124ESA-T	DIGI TRANSISTOR		
Q482	KTC3199/YG/-T	TRANSISTOR		
Q501	BSN304-T	MOS FET		
⚠Q521	2SC5904-RL	POW TRANSISTOR	H.OUT	
Q581	2SA1208/ST/Z1-T	TRANSISTOR		
Q582	DTC144ESA-T	DIGI TRANSISTOR		
Q583	KTC3199/YG/-T	TRANSISTOR		
Q941	KTC3199/YG/-T	TRANSISTOR		
Q942	KTC3199/YG/-T	TRANSISTOR		
D402	1SR35-400A-T2	SI DIODE		
D461	FR105GT-T3	SI DIODE		
D462	1SS133-T2	SI DIODE		
D463	1SS133-T2	SI DIODE		
D481	1SS133-T2	SI DIODE		
D501	1SS244-T2	SI DIODE		
D521	V11CA-C1	SI DIODE		
D522	FMV-3FU-F1	SI DIODE		
D523	MTZJ22B-T2	Z DIODE		
D525	FR105GT-T3	SI DIODE		
D541	FR105GT-T3	SI DIODE		
D542	MTZJ3.9B-T2	Z DIODE		
D551	FR105GT-T3	SI DIODE		
D552	FR105GT-T3	SI DIODE		
D553	FR105GT-T3	SI DIODE		
D582	MTZJ7.5B-T2	Z DIODE		
D583	MTZJ7.5S-T2	Z DIODE		
D584	FR105GT-T3	SI DIODE		
D901	D3SBA60	DIODE		
D902	FR107GT-T3	SI DIODE		
D904	FR105GT-T3	SI DIODE		
D905	1SS133-T2	SI DIODE		
D906	MTZJ27B-T2	Z DIODE		
D907	1SS133-T2	SI DIODE		
D910	MTZJ15B-T2	Z DIODE		
D911	MTZJ15B-T2	Z DIODE		
D931	S1WB/A/60-4101	BRIDGE DIODE		
D945	1SS133-T2	SI DIODE		
D951	RU4AM-LFT2	SI DIODE		
D952	RU4AM-LFT2	SI DIODE		
D953	FR105GT-T3	SI DIODE		
D954	HER202G-FL	SI DIODE		
D956	FSF05A20	SI DIODE		
D958	MTZJ33B-T2	Z DIODE		
D959	1SS133-T2	SI DIODE		
D981	1SS133-T2	SI DIODE		
D982	1SS133-T2	SI DIODE		
D983	1SS133-T2	SI DIODE		
C404	QFVF1HJ-104Z	MF CAPACITOR	0.1uF 50V J	
C405	QDC31HJ-820Z	C CAPACITOR	82pF 50V J	
C406	QETM1VM-108	E CAPACITOR	1000uF 35V M	
C408	QETN1VM-337Z	E CAPACITOR	330uF 35V M	
C409	QFVF1HJ-474Z	MF CAPACITOR	0.47uF 50V J	
C410	QFVF1HJ-474Z	MF CAPACITOR	0.47uF 50V J	
C411	QFLC2AJ-104Z	M CAPACITOR	0.1uF 100V J	
C414	QCB31HK-682Z	C CAPACITOR	6800pF 50V K	
C415	QDC31HJ-470Z	C CAPACITOR	47pF 50V J	
C461	QEZ0414-226	BP E CAPACITOR	22uF 50V M	
C462	QFN32DJ-152Z	M CAPACITOR	1500pF 200V J	
C463	QFN32DJ-152Z	M CAPACITOR	1500pF 200V J	
C464	QFVF1HJ-104Z	MF CAPACITOR	0.1uF 50V J	
C465	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C466	QFP31HJ-272Z	PP CAPACITOR	2700pF 50V J	
C467	QFLC1HJ-102Z	M CAPACITOR	1000pF 50V J	
C468	QETN1EM-476Z	E CAPACITOR	47uF 25V M	

⚠Ref No.	Part No.	Part Name	Description Local
C470	QCS31HJ-470Z	C CAPACITOR	47pF 50V J
C471	QFLC1HJ-103Z	M CAPACITOR	0.01uF 50V J
C481	QETN1HM-105Z	E CAPACITOR	1uF 50V M
C501	QCB32HK-331Z	C CAPACITOR	330pF 500V K
C502	QFN32DK-103	M CAPACITOR	0.01uF 200V K
C503	QFVF1HJ-224Z	MF CAPACITOR	0.22uF 50V J
C521	QFZ0122-112	MPP CAPACITOR	1100pF 1.8kV H
C522	QFZ0196-113	MPP CAPACITOR	0.011uF 1.5kV H
C523	QFN32DJ-393	M CAPACITOR	0.039uF 200V J
C524	QFP32JJ-223	PP CAPACITOR	0.022uF 630V J
C526	QFZ0197-204	MPP CAPACITOR	0.2uF 250V J
C527	QFZ0197-124	MPP CAPACITOR	0.12uF 250V J
C529	QFZ0197-154	MPP CAPACITOR	0.15uF 250V J
C530	QCB32HK-561Z	C CAPACITOR	560pF 500V K
C531	QFZ0194-534	MPP CAPACITOR	0.53uF 250V J
C532	QETM2CM-227	E CAPACITOR	220uF 160V M
C533	QETN2EM-475Z	E CAPACITOR	4.7uF 250V M
C541	QFVF1HJ-105Z	MF CAPACITOR	1uF 50V J
C551	QCB32HK-152Z	C CAPACITOR	1500pF 500V K
C552	QETN1CM-108Z	E CAPACITOR	1000uF 16V M
C553	QCB32HK-152Z	C CAPACITOR	1500pF 500V K
C554	QETN1CM-108Z	E CAPACITOR	1000uF 16V M
C556	QETN2EM-106Z	E CAPACITOR	10uF 250V M
C558	QETN1CM-477Z	E CAPACITOR	470uF 16V M
C581	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C582	QETN1EM-476Z	E CAPACITOR	47uF 25V M
C583	QETN2AM-106Z	E CAPACITOR	10uF 100V M
C584	QETN1AM-227Z	E CAPACITOR	220uF 10V M
⚠C901	QFZ9072-473	MM CAPACITOR	0.047uF AC250V K
⚠C902	QFZ9072-104	MM CAPACITOR	0.1uF AC250V K
⚠C903	QFZ9072-473	MM CAPACITOR	0.047uF AC250V K
⚠C904	QCZ9054-472	C CAPACITOR	4700pF AC250V Z
⚠C905	QCZ9054-472	C CAPACITOR	4700pF AC250V Z
⚠C906	QCZ9054-472	C CAPACITOR	4700pF AC250V Z
C907	QEZ0649-227	E CAPACITOR	220uF 400V M
C908	QCB32HK-103	C CAPACITOR	0.01uF 500V K
C909	QCZ0340-391	C CAPACITOR	390pF 2kV K
C910	QETN1HM-476Z	E CAPACITOR	47uF 50V M
C911	QCB31HK-102Z	C CAPACITOR	1000pF 50V K
C912	QCZ0340-561	C CAPACITOR	560pF 2kV K
C914	QCB31HK-221Z	C CAPACITOR	220pF 50V K
C915	QFLC1HJ-104Z	M CAPACITOR	0.1uF 50V J
C916	QCB32HK-152Z	C CAPACITOR	1500pF 500V K
C917	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
⚠C931	QCZ9054-472	C CAPACITOR	4700pF AC250V Z
⚠C932	QCZ9054-472	C CAPACITOR	4700pF AC250V Z
⚠C933	QCZ9054-472	C CAPACITOR	4700pF AC250V Z
C934	QEZ0632-226	E CAPACITOR	22uF 400V M
C941	QTMN1CM-477Z	E CAPACITOR	470uF 16V M
C942	QETN1AM-337Z	E CAPACITOR	330uF 10V M
C951	QEZ0203-227	E CAPACITOR	220uF 160V M
C952	QEZ0255-228	E CAPACITOR	2200uF 16V M
C953	QETN1CM-108Z	E CAPACITOR	1000uF 16V M
C954	QETM1VM-228	E CAPACITOR	2200uF 35V M
C956	QETM1AM-338	E CAPACITOR	3300uF 10V M
C957	QETN1AM-477Z	E CAPACITOR	470uF 10V M
C959	QFVF1HJ-684Z	MF CAPACITOR	0.68uF 50V J
C960	QCZ0325-821	C CAPACITOR	820pF 2kV K
C968	QETM1AM-338	E CAPACITOR	3300uF 10V M
⚠C991	QCZ9079-222	C CAPACITOR	2200pF AC250V M
⚠C993	QCZ9079-471	C CAPACITOR	470pF AC250V K
R401	QRE141J-562Y	C RESISTOR	5.6kΩ 1/4W J
R402	QRE141J-562Y	C RESISTOR	5.6kΩ 1/4W J
R403	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J
R404	QRX01GJ-1R0	MF RESISTOR	1Ω 1W J
R405	QRL029J-151	OMF RESISTOR	150Ω 2W J
R406	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J
R407	QRX01GJ-1R5	MF RESISTOR	1.5Ω 1W J
R408	QRX01GJ-1R5	MF RESISTOR	1.5Ω 1W J
R409	QRE141J-823Y	C RESISTOR	82kΩ 1/4W J
R410	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J
R461	QRG029J-820	OMF RESISTOR	82Ω 2W J
R462	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J
R463	QRA14CF-9101Y	CMF RESISTOR	9.1kΩ 1/4W F
R464	QRX01GJ-2R7	MF RESISTOR	2.7Ω 1W J
R468	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J
R469	QRE141J-272Y	C RESISTOR	2.7kΩ 1/4W J
R471	QRE141J-391Y	C RESISTOR	390Ω 1/4W J
R472	QRA14CF-1002Y	CMF RESISTOR	10kΩ 1/4W F
R473	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J
R474	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J
R475	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J
R476	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J
R477	QRE141J-563Y	C RESISTOR	56kΩ 1/4W J
R478	QRE141J-333Y	C RESISTOR	33kΩ 1/4W J
R481	QRE141J-274Y	C RESISTOR	270kΩ 1/4W J
R482	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J
R501	QRE141J-471Y	C RESISTOR	470Ω 1/4W J
R502	QRE141J-123Y	C RESISTOR	12kΩ 1/4W J
R503	QRE121J-152Y	C RESISTOR	1.5kΩ 1/2W J
R504	QRL039J-222	OMF RESISTOR	2.2kΩ 3W J
R505	QRL039J-222	OMF RESISTOR	2.2kΩ 3W J
R506	QRE121J-5R6Y	C RESISTOR	5.6Ω 1/2W J
R521	QRE121J-471Y	C RESISTOR	470Ω 1/2W J
R522	QRE141J-333Y	C RESISTOR	33kΩ 1/4W J
R523	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J
R524	QRC121K-152Z	COMP RESISTOR	1.5kΩ 1/2W K
R525	QRL039J-103	OMF RESISTOR	10kΩ 3W J
R541	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J
R542	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J
R543	QRE121J-272Y	C RESISTOR	2.7kΩ 1/2W J
R551	QRT039J-3R3	MF RESISTOR	3.3Ω 3W J
R552	QRT039J-3R3	MF RESISTOR	3.3Ω 3W J
R581	QRF154K-4R7	UNF WW RESISTOR	4.7Ω 15W K
R582	QRE141J-681Y	C RESISTOR	680Ω 1/4W J
R583	QRE121J-682Y	C RESISTOR	6.8kΩ 1/2W J
R584	QRE141J-183Y	C RESISTOR	18kΩ 1/4W J
R585	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J
R586	QRA14CF-7501Y	CMF RESISTOR	7.5kΩ 1/4W F
R587	QRA14CF-2101Y	CMF RESISTOR	2.1kΩ 1/4W F
R588	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J
⚠R591	QRZ9017-4R7	FUSI RESISTOR	4.7Ω 1/4W J
R901	QRE121J-331Y	C RESISTOR	330Ω 1/2W J
R902	QRF054K-3R3	UNF WW RESISTOR	3.3Ω 5W K
R903	QRF104K-3R9	UNF WW RESISTOR	3.9Ω 10W K
R904	QRL039J-683	OMF RESISTOR	68kΩ 3W J
R905	QRE121J-474Y	C RESISTOR	470kΩ 1/2W J
R906	QRE121J-474Y	C RESISTOR	470kΩ 1/2W J
R908	QRL039J-823	OMF RESISTOR	82kΩ 3W J
R909	QRL039J-823	OMF RESISTOR	82kΩ 3W J
R910	QRE121J-680Y	C RESISTOR	68Ω 1/2W J
R911	QRE121J-332Y	C RESISTOR	3.3kΩ 1/2W J
R914	QRZ0237-R10	UNF WW RESISTOR	0.1Ω
R915	QRE121J-221Y	C RESISTOR	220Ω 1/2W J
R916	QRE121J-152Y	C RESISTOR	1.5kΩ 1/2W J
R917	QRE141J-154Y	C RESISTOR	150kΩ 1/4W J
R944	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J
R945	QRE141J-563Y	C RESISTOR	56kΩ 1/4W J
R946	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J
R949	QRE141J-334Y	C RESISTOR	330kΩ 1/4W J
R951	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J
R952	QRL039J-223	OMF RESISTOR	22kΩ 3W J
R953	QRT039J-R33	MF RESISTOR	0.33Ω 3W J
R981	QRE141J-153Y	C RESISTOR	15kΩ 1/4W J
R982	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J
⚠R991	QRZ9046-825Z	C RESISTOR	8.2MΩ 1/2W K
L461	QQR1195-001	CHOKE COIL	
L462	QQR1422-001	CHOKE COIL	
L521	QQLZ031-180	CHOKE COIL	18uH
L522	QQR1191-002	LINEARITY COIL	
L551	QQLZ026-540	COIL	54uH Å}7%
L901	QQL401K-100Z	CHOKE COIL	10uH K
L902	QQL401K-100Z	CHOKE COIL	10uH K
⚠L903	QQR1200-001	CHOKE COIL	
L941	QQL26AM-4R7Z	CHOKE COIL	4.7uH M
L942	QQL26AK-220Z	CHOKE COIL	22uH K
L951	QQLZ026-460	COIL	46uH Å}7%
T501	QQR1111-001	LINEARITY COIL	
⚠T901	QQS0258-001	SW TRANSF	
CN003	QGB1506M1-16	CONNECTOR	B-B (1-16)
CN004	QGB1506M1-16	CONNECTOR	B-B (1-16)
CN005	QGB1506M1-16	CONNECTOR	B-B (1-16)
CN0HV	CHC802T-05N-J	LV CONNECTOR	
⚠CP931	QMFZ052-2R0-E	FUSE	2A AC250V
⚠CP951	ICP-N75-Y	IC PROTECTOR	2.7A
⚠CP952	ICP-N75-Y	IC PROTECTOR	2.7A
⚠CP954	ICP-N75-Y	IC PROTECTOR	2.7A
K401	QQR0621-002Z	FERRITE BEADS	
K522	QQR1114-001Z	FERRITE BEADS	
K523	QQR1114-001Z	FERRITE BEADS	
K524	QQR1114-001Z	FERRITE BEADS	
K901	QQR1113-001Z	FERRITE BEADS	
K952	QQR0621-002Z	FERRITE BEADS	
K953	QQR0621-002Z	FERRITE BEADS	
K955	QQR0621-002Z	FERRITE BEADS	
⚠LF901	QQR1095-001	LINE FILTER	
⚠PC901	PC123Y22FZ	PHOTO COUPLER	
⚠RY941	QSK0099-001	RELAY	
⚠TH901	QAD0121-9R0	P THERMISTOR	9Ω

CRT SOCKET P.W. BOARD ASS'Y (SML-3302A-U2)

⚠Ref No.	Part No.	Part Name	Description Local
IC3201	TDA6111Q	IC	
IC3202	TDA6111Q	IC	
IC3203	TDA6111Q	IC	
Q3104	2SC3928A/QR/-X	TRANSISTOR	
Q3105	2SC1627A/OY/-T	SI TRANSISTOR	
Q3108	2SA2005/DE/	POW TRANSISTOR	
Q3109	2SC5511/DE/	POW TRANSISTOR	
Q3301	2SA1530A/QR/-X	TRANSISTOR	
Q3303	2SA1530A/QR/-X	TRANSISTOR	
Q3304	2SC3928A/QR/-X	TRANSISTOR	
D3102	MA111-X	SI DIODE	
D3103	FR105GT-T3	SI DIODE	
D3104	FR105GT-T3	SI DIODE	
D3201	FR105SGT-T2	SI DIODE	
D3202	FR105SGT-T2	SI DIODE	
D3203	FR105SGT-T2	SI DIODE	
D3204	FR105GT-T3	SI DIODE	
D3205	1N4003SG-T2	SI DIODE	
D3206	1N4003SG-T2	SI DIODE	
D3207	1N4003SG-T2	SI DIODE	
D3208	MA8062/M/-X	Z DIODE	
D3209	MA8130/H/-X	Z DIODE	
D3210	MA8130/H/-X	Z DIODE	
D3301	MA111-X	SI DIODE	
D3302	MA111-X	SI DIODE	
D3303	MA111-X	SI DIODE	
D3306	MA8036-X	Z DIODE	
C3106	QETN1HM-335Z	E CAPACITOR	3.3uF 50V M
C3107	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C3110	QETN2CM-106Z	E CAPACITOR	10uF 160V M
C3111	QCB32HK-472Z	C CAPACITOR	4700pF 500V K
C3113	QETN2CM-106Z	E CAPACITOR	10uF 160V M
C3114	QCB32HK-472Z	C CAPACITOR	4700pF 500V K
C3116	QETN1AM-107Z	E CAPACITOR	100uF 10V M
C3117	QETN1AM-107Z	E CAPACITOR	100uF 10V M
C3118	QEHR1AM-337Z	E CAPACITOR	330uF 10V M
C3120	NDC31HJ-561X	C CAPACITOR	560pF 50V J
C3201	NDC31HJ-8R0X	C CAPACITOR	8pF 50V J
C3202	NDC31HJ-8R0X	C CAPACITOR	8pF 50V J
C3203	NDC31HJ-8R0X	C CAPACITOR	8pF 50V J
C3204	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z
C3205	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z
C3206	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z
C3207	QETN1EM-476Z	E CAPACITOR	47uF 25V M
C3208	QEHR1VM-476Z	E CAPACITOR	47uF 35V M
C3209	QEHR1VM-476Z	E CAPACITOR	47uF 35V M
C3210	QFKC2EK-104Z	MM CAPACITOR	0.1uF 250V K
C3211	QFKC2EK-104Z	MM CAPACITOR	0.1uF 250V K
C3212	QFKC2EK-104Z	MM CAPACITOR	0.1uF 250V K
C3213	NDC31HJ-181X	C CAPACITOR	180pF 50V J
C3214	NDC31HJ-181X	C CAPACITOR	180pF 50V J
C3215	NDC31HJ-181X	C CAPACITOR	180pF 50V J
C3216	QETN1CM-227Z	E CAPACITOR	220uF 16V M
C3218	QETM2EM-336	E CAPACITOR	33uF 250V M
C3219	QFZ0097-223	MM CAPACITOR	0.022uF 1.25KV M
C3221	QETN2EM-106Z	E CAPACITOR	10uF 250V M
C3222	QETN2EM-106Z	E CAPACITOR	10uF 250V M
C3223	QEHR2EM-106Z	E CAPACITOR	10uF 250V M
C3224	QETN2EM-106Z	E CAPACITOR	10uF 250V M
C3225	NDC31HJ-151X	C CAPACITOR	150pF 50V J
C3303	NCB31CK-563X	C CAPACITOR	0.056uF 16V K
R3103	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R3109	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J
R3112	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J
R3114	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J
R3115	NRSA63J-560X	MG RESISTOR	56Ω 1/16W J
R3116	QRG01GJ-101	OMF RESISTOR	100Ω 1W J
R3117	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J
R3122	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J
R3123	QRE121J-563Y	C RESISTOR	56kΩ 1/2W J
R3124	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J
R3125	QRE121J-563Y	C RESISTOR	56kΩ 1/2W J
R3126	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J
R3127	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J
R3128	NRSA63J-390X	MG RESISTOR	39Ω 1/16W J
R3129	QRE121J-2R7Y	C RESISTOR	2.7Ω 1/2W J
R3130	QRE121J-2R7Y	C RESISTOR	2.7Ω 1/2W J
R3131	NRSA63J-390X	MG RESISTOR	39Ω 1/16W J
R3132	NRSA63J-121X	MG RESISTOR	120Ω 1/16W J
R3133	QRL029J-681	OMF RESISTOR	680Ω 2W J
⚠R3134	QRZ9021-561	FUSI RESISTOR	560Ω 1W J
R3201	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R3202	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R3203	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R3208	NRSA63J-154X	MG RESISTOR	150kΩ 1/16W J
R3209	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R3218	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J
R3219	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J
R3220	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J
R3222	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R3223	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J
R3224	QRL029J-104-F	OMF RESISTOR	100kΩ 2W J
R3225	QRL029J-104-F	OMF RESISTOR	100kΩ 2W J
R3226	QRL029J-104-F	OMF RESISTOR	100kΩ 2W J
R3227	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R3228	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R3229	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R3230	QRZ0107-152Z	C RESISTOR	1.5kΩ 1/2W K
R3231	QRZ0107-152Z	C RESISTOR	1.5kΩ 1/2W K
R3232	QRZ0107-152Z	C RESISTOR	1.5kΩ 1/2W K
R3234	QRZ0107-474Z	C RESISTOR	470kΩ 1/2W K
R3235	QRZ0107-102Z	C RESISTOR	1kΩ 1/2W K
R3236	QRZ0107-105Z	C RESISTOR	1MΩ 1/2W K
R3237	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R3239	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R3240	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R3241	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R3242	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R3301	QRE121J-474Y	C RESISTOR	470kΩ 1/2W J
R3302	QRE121J-474Y	C RESISTOR	470kΩ 1/2W J
R3303	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
R3304	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
R3305	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R3306	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J
R3308	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R3311	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R3312	NRSA63J-120X	MG RESISTOR	12Ω 1/16W J
R3313	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J
L3204	QQL26AJ-102Z	PEAKING COIL	1mH J
CN300G	QJK002-063231	SIN CR C-B WIRE	
CN300R	QJB003-093626	SIN ID C-B WIRE	
CN30E1	CE41507-001P	LV CONNECTOR	
K3101	QQR1114-001Z	FERRITE BEADS	
K3103	QQR1114-001Z	FERRITE BEADS	
K3104	QQR1114-001Z	FERRITE BEADS	
K3105	QQR0621-002Z	FERRITE BEADS	
K3202	QQR1113-001Z	FERRITE BEADS	
SG3201	QAF0056-501Z	SURGE ABSORBER	500V M
SG3202	QAF0056-501Z	SURGE ABSORBER	500V M
SG3203	QAF0056-501Z	SURGE ABSORBER	500V M
⚠SK3001	QNZ0536-001	CRT SOCKET	

SIDE CONTROL P.W. BOARD ASS'Y (SML-8132A-U2)

⚠Ref No.	Part No.	Part Name	Description Local
D8101	MA8056/M/-X	Z DIODE	
C8101	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C8102	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C8103	NCB31HK-102X	C CAPACITOR	1000pF 50V K
C8104	NCB31HK-102X	C CAPACITOR	1000pF 50V K
C8131	NCB31HK-472X	C CAPACITOR	4700pF 50V K
C8132	NCB31HK-472X	C CAPACITOR	4700pF 50V K
C8133	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
R8102	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R8105	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R8111	QRE121J-101Y	C RESISTOR	100Ω 1/2W J
R8112	QRE121J-101Y	C RESISTOR	100Ω 1/2W J
R8113	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R8114	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R8133	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
L8111	QQL244K-5R6Z	PEAKING COIL	5.6uH K
L8112	QQL244K-5R6Z	PEAKING COIL	5.6uH K
L8131	QQL244K-270Z	PEAKING COIL	27uH K
L8132	QQL244K-270Z	PEAKING COIL	27uH K
J8111	QMS3001-C01	3.5 JACK	HEADPHONE
J8131	QNN0591-001	PIN JACK	EXT-4(V/L/R)
J8132	QND0084-001	S JACK	EXT-4(S)
K8111	NQR0129-004X	FERRITE BEADS	

⚠Ref No.	Part No.	Part Name	Description	Local
K8131	NQR0129-004X	FERRITE BEADS		
S8101	QSW0619-003Z	TACT SWITCH	CH UP	
S8102	QSW0619-003Z	TACT SWITCH	MENU	
S8103	QSW0619-003Z	TACT SWITCH	CH DOWN	

FRONT CONTROL P.W. BOARD ASS'Y (SML-8301A-U2)

⚠Ref No.	Part No.	Part Name	Description	Local
IC8851	GP1UM281QKVF	IR DETECT UNIT		
Q8801	UN2212-X	DIGI TRANSISTOR		
D8801	LH22440-T16	LED	POWER	
C8851	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C8852	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
⚠C8901	QFZ9072-474	MM CAPACITOR	0.47uF AC250V K	
R8801	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R8802	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
R8804	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R8851	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R8852	QRE121J-470Y	C RESISTOR	47Ω 1/2W J	
CN800W	WJK0200-002A-E	E-SI C WIRE C-B		
⚠F8901	QMF51D2-3R15-J1	FUSE	3.15A AC250V	
⚠LF8901	QQR1095-001	LINE FILTER		
⚠S8901	QSW0824-001	PUSH SWITCH	POWER	

AV JACK P.W. BOARD ASS'Y (SML0J301A-U2)

⚠Ref No.	Part No.	Part Name	Description	Local
D0101	MA8056/M/-X	Z DIODE		
D0102	MA8056/M/-X	Z DIODE		
D0103	MA8056/M/-X	Z DIODE		
D0104	MA8056/M/-X	Z DIODE		
D0115	MA8056/M/-X	Z DIODE		
D0116	MA8056/M/-X	Z DIODE		
D0117	MA8056/M/-X	Z DIODE		
D0118	MA8056/M/-X	Z DIODE		
D0119	MA8056/M/-X	Z DIODE		
D0121	MA8056/M/-X	Z DIODE		
C0101	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C0102	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C0103	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C0104	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C0105	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C0106	NDC31HJ-221X	C CAPACITOR	220pF 50V J	
C0107	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C0108	NDC31HJ-221X	C CAPACITOR	220pF 50V J	
C0109	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C0110	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C0111	NCB11EK-104X	C CAPACITOR	0.1uF 25V K	
R0101	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R0102	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R0103	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R0104	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R0105	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R0106	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R0107	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R0108	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R0109	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R0203	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R0204	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R0205	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
CN0001	QGB1505K1-35	CONNECTOR	B-B (1-35)	
J0001	QNZ0465-001	21P CONNECTOR	EXT-3	
J0002	QNZ0463-001	21P CONNECTOR	EXT-1/EXT-2	
K0101	NQR0129-004X	FERRITE BEADS		
K0102	NQR0129-004X	FERRITE BEADS		
K0103	NQR0129-004X	FERRITE BEADS		

100HZ PB ASS'Y (SML0Z351A-U2)

⚠Ref No.	Part No.	Part Name	Description	Local
IC001	SDA6000-B12	IC		
IC002	S-80828CNNB-G-W	IC		
IC003	K4S641632H-UC75	IC		
IC004	SA16M90TFIR1	IC		
IC191	PQ2L3252MS-X	IC		
IC201	VSP9405B-VK-C4	IC		
IC301	DDP3315C-QA-G3	IC		
IC901	R1170H181B-X	IC		
IC902	MM1563DF-X	IC		
IC903	MM1565AF-X	IC		
Q013	2SK3019-X	MOS FET		
Q014	2SK3019-X	MOS FET		
Q202	2SA1530A/QR/-X	TRANSISTOR		
Q203	2SA1530A/QR/-X	TRANSISTOR		
Q301	2SA1530A/QR/-X	TRANSISTOR		
Q302	2SC3928A/QR/-X	TRANSISTOR		
Q304	2SC4672/PQ/-W	POW TRANSISTOR		
Q305	2SA1530A/QR/-X	TRANSISTOR		
Q306	2SA1530A/QR/-X	TRANSISTOR		
Q307	2SA1530A/QR/-X	TRANSISTOR		
QA002	UMX1N-W	PAIR TRANSISTOR		
QA003	UMX1N-W	PAIR TRANSISTOR		
QA004	UMT1N-W	PAIR TRANSISTOR		
QA301	UMX1N-W	PAIR TRANSISTOR		
QA302	UMT1N-W	PAIR TRANSISTOR		
D001	MA111-X	SI DIODE		
D002	MA111-X	SI DIODE		
D003	MA8068/M/-X	Z DIODE		
D006	MA8039/H/-X	Z DIODE		
D007	MA8039/H/-X	Z DIODE		
D301	DA221-X	DIODE ARRAY		
D302	DA221-X	DIODE ARRAY		
D303	DA221-X	DIODE ARRAY		
D304	DA221-X	DIODE ARRAY		
D305	MA111-X	SI DIODE		
D306	DA221-X	DIODE ARRAY		
D307	MA8039/H/-X	Z DIODE		
D308	MA8033-X	Z DIODE		
C001	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C019	NEHL1CM-476X	E CAPACITOR	47uF 16V M	
C020	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C021	NEHL1CM-476X	E CAPACITOR	47uF 16V M	
C022	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C023	NCB31EK-333X	C CAPACITOR	0.033uF 25V K	
C024	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C025	NCB31EK-333X	C CAPACITOR	0.033uF 25V K	
C027	NEHL1CM-476X	E CAPACITOR	47uF 16V M	
C028	NEHL0GM-227X	E CAPACITOR	220uF 4V M	
C029	NDC31HJ-151X	C CAPACITOR	150pF 50V J	
C030	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C031	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C032	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C034	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C035	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C036	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C037	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C038	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C039	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C040	NDC31HJ-330X	C CAPACITOR	33pF 50V J	
C041	NDC31HJ-330X	C CAPACITOR	33pF 50V J	
C042	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C043	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C045	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C046	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C047	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C048	NEHL1CM-476X	E CAPACITOR	47uF 16V M	
C049	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C050	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C051	NEHL1CM-476X	E CAPACITOR	47uF 16V M	
C052	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C053	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C054	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C055	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C056	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C057	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C059	NEHL1CM-106X	E CAPACITOR	10uF 16V M	
C060	NEHL1CM-106X	E CAPACITOR	10uF 16V M	
C061	NEHL1CM-106X	E CAPACITOR	10uF 16V M	
C062	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
C066	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C067	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C068	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	

⚠Ref No.	Part No.	Part Name	Description Local
C191	NEHL0GM-227X	E CAPACITOR	220uF 4V M
C192	NCB20JK-225X	C CAPACITOR	2.2uF 6.3V K
C193	NCB20JK-225X	C CAPACITOR	2.2uF 6.3V K
C194	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C195	NEHL0JM-107X	E CAPACITOR	100uF 6.3V M
C196	NCB20JK-225X	C CAPACITOR	2.2uF 6.3V K
C197	NEHL0GM-227X	E CAPACITOR	220uF 4V M
C201	NDC31HJ-331X	C CAPACITOR	330pF 50V J
C202	NDC31HJ-331X	C CAPACITOR	330pF 50V J
C203	NDC31HJ-331X	C CAPACITOR	330pF 50V J
C204	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C205	NCB31HK-473X	C CAPACITOR	0.047uF 50V K
C206	NCB31HK-473X	C CAPACITOR	0.047uF 50V K
C207	NCB31HK-473X	C CAPACITOR	0.047uF 50V K
C208	NCF31AZ-105X	C CAPACITOR	1uF 10V Z
C209	NCB31HK-473X	C CAPACITOR	0.047uF 50V K
C210	NCF31AZ-105X	C CAPACITOR	1uF 10V Z
C211	NCB31HK-473X	C CAPACITOR	0.047uF 50V K
C212	NCB31HK-473X	C CAPACITOR	0.047uF 50V K
C213	NCF31AZ-105X	C CAPACITOR	1uF 10V Z
C214	NCB31AK-334X	C CAPACITOR	0.33uF 10V K
C215	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C219	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C220	NCF31AZ-105X	C CAPACITOR	1uF 10V Z
C221	NCF31AZ-105X	C CAPACITOR	1uF 10V Z
C222	NCF31AZ-105X	C CAPACITOR	1uF 10V Z
C223	NCF31AZ-105X	C CAPACITOR	1uF 10V Z
C224	NCF31AZ-105X	C CAPACITOR	1uF 10V Z
C225	NDC31HJ-330X	C CAPACITOR	33pF 50V J
C226	NDC31HJ-330X	C CAPACITOR	33pF 50V J
C227	NCF31AZ-105X	C CAPACITOR	1uF 10V Z
C228	NCF31AZ-105X	C CAPACITOR	1uF 10V Z
C229	NCF31AZ-105X	C CAPACITOR	1uF 10V Z
C230	NCF31AZ-105X	C CAPACITOR	1uF 10V Z
C231	NCF31AZ-105X	C CAPACITOR	1uF 10V Z
C301	NEHL1HM-105X	E CAPACITOR	1uF 50V M
C303	NDC31HJ-180X	C CAPACITOR	18pF 50V J
C304	NDC31HJ-180X	C CAPACITOR	18pF 50V J
C305	NEHL1HM-105X	E CAPACITOR	1uF 50V M
C306	NCF31AZ-105X	C CAPACITOR	1uF 10V Z
C307	NDC31HJ-561X	C CAPACITOR	560pF 50V J
C308	NEHL1HM-105X	E CAPACITOR	1uF 50V M
C309	NCF31AZ-105X	C CAPACITOR	1uF 10V Z
C311	NDC31HJ-150X	C CAPACITOR	15pF 50V J
C312	NCB31HK-562X	C CAPACITOR	5600pF 50V K
C313	NCB31HK-333X	C CAPACITOR	0.033uF 50V K
C314	NCB31HK-333X	C CAPACITOR	0.033uF 50V K
C315	NCB30JK-225X	C CAPACITOR	2.2uF 6.3V K
C316	NCB30JK-105X	C CAPACITOR	1uF 6.3V K
C319	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C320	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C321	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C322	NEH71HM-335X	E CAPACITOR	3.3uF 50V M
C323	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C324	NCF31AZ-105X	C CAPACITOR	1uF 10V Z
C325	NEHL1CM-106X	E CAPACITOR	10uF 16V M
C329	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C330	NEHL1CM-106X	E CAPACITOR	10uF 16V M
C331	NCB31HK-682X	C CAPACITOR	6800pF 50V K
C332	NCB31EK-104X	C CAPACITOR	0.1uF 25V K
C333	NEHL1CM-106X	E CAPACITOR	10uF 16V M
C334	NDC31HJ-561X	C CAPACITOR	560pF 50V J
C335	NDC31HJ-561X	C CAPACITOR	560pF 50V J
C336	NDC31HJ-561X	C CAPACITOR	560pF 50V J
C338	NDC31HJ-102X	C CAPACITOR	1000pF 50V J
C901	NEHL1CM-106X	E CAPACITOR	10uF 16V M
C902	NEHL1CM-106X	E CAPACITOR	10uF 16V M
C903	NCB10JK-106X	C CAPACITOR	10uF 6.3V K
C904	NEHL1CM-106X	E CAPACITOR	10uF 16V M
C905	NEHL1CM-106X	E CAPACITOR	10uF 16V M
C906	NCB20JK-225X	C CAPACITOR	2.2uF 6.3V K
C907	NCF31AZ-105X	C CAPACITOR	1uF 10V Z
C908	NCF31AZ-105X	C CAPACITOR	1uF 10V Z
C909	NCB20JK-225X	C CAPACITOR	2.2uF 6.3V K
C910	NDC31HJ-471X	C CAPACITOR	470pF 50V J
C911	NEHL1CM-106X	E CAPACITOR	10uF 16V M
C912	NCB11CK-225X	C CAPACITOR	2.2uF 16V K
C913	NCB20JK-225X	C CAPACITOR	2.2uF 6.3V K
C914	NDC31HJ-471X	C CAPACITOR	470pF 50V J
C915	NEHL0JM-107X	E CAPACITOR	100uF 6.3V M
C916	NEHL1CM-106X	E CAPACITOR	10uF 16V M
C917	NEHL1CM-106X	E CAPACITOR	10uF 16V M
C918	NEHL1CM-106X	E CAPACITOR	10uF 16V M
R001	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R002	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R003	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R004	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R005	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R006	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J
R007	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R008	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R009	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R010	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R011	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R012	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J
R013	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R014	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R015	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R016	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R017	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R018	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R019	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R020	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R022	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R024	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R027	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R030	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R032	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R034	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R035	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R036	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R037	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R038	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R042	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R043	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R044	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R054	NRSA63J-390X	MG RESISTOR	39Ω 1/16W J
R055	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R057	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R058	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R059	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R060	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R061	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R087	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R089	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R090	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R091	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R092	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R093	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R094	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R095	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R096	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R097	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R098	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R099	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J
R100	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R101	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R102	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R112	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R113	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R114	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R115	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R116	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R124	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R127	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R128	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R129	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R130	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R131	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R133	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R134	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R135	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R136	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R137	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R138	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R139	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R147	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R151	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J
R152	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R153	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R154	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R155	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R156	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R158	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R165	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R169	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R170	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R171	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R174	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R175	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R176	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R177	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R201	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J

⚠Ref No.	Part No.	Part Name	Description	Local
R202	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R203	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R204	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R207	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R208	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R209	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R210	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R211	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R212	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R213	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
R214	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R215	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R216	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R217	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R218	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R219	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R221	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R222	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
R223	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R224	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R301	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R302	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R303	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R304	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R305	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R306	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R309	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R310	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R311	NRSA63J-683X	MG RESISTOR	68kΩ 1/16W J	
R314	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R315	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R318	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J	
R319	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R320	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R321	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R322	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R323	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R324	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R325	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J	
R326	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R327	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R328	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R329	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R330	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R331	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R332	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R333	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R334	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R336	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J	
R337	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R338	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R339	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R341	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J	
R342	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
R343	NRSA63J-330X	MG RESISTOR	33Ω 1/16W J	
R344	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	
R345	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R346	NRSA63J-330X	MG RESISTOR	33Ω 1/16W J	
R347	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	
R348	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R349	NRSA63J-330X	MG RESISTOR	33Ω 1/16W J	
R350	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	
R351	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R352	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R353	NRSA63J-271X	MG RESISTOR	270Ω 1/16W J	
R354	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R355	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R357	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R358	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
R359	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R360	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R362	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R901	NRS12BJ-101W	MG RESISTOR	100Ω 1/2W J	
R902	NRS12BJ-101W	MG RESISTOR	100Ω 1/2W J	
R904	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R905	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
RA001	NRZ0040-0R0X	NET RESISTOR	0Ω 1/16W J x4	
RA002	NRZ0040-0R0X	NET RESISTOR	0Ω 1/16W J x4	
RA003	NRZ0040-0R0X	NET RESISTOR	0Ω 1/16W J x4	
RA004	NRZ0040-0R0X	NET RESISTOR	0Ω 1/16W J x4	
RA005	NRZ0040-0R0X	NET RESISTOR	0Ω 1/16W J x4	
RA006	NRZ0040-0R0X	NET RESISTOR	0Ω 1/16W J x4	
RA007	NRZ0040-0R0X	NET RESISTOR	0Ω 1/16W J x4	
RA008	NRZ0040-0R0X	NET RESISTOR	0Ω 1/16W J x4	
L001	NQL092K-4R7X	COIL	4.7uH K	
L003	NQL092K-4R7X	COIL	4.7uH K	
L005	NQL092K-4R7X	COIL	4.7uH K	
L006	NQL092K-4R7X	COIL	4.7uH K	
L007	NQL092K-4R7X	COIL	4.7uH K	
L008	NQL092K-4R7X	COIL	4.7uH K	
L009	NQL914M-4R7X	COIL	4.7uH M	
L010	NQL092K-4R7X	COIL	4.7uH K	
L011	NQL092K-4R7X	COIL	4.7uH K	
L012	NQL092K-4R7X	COIL	4.7uH K	
L013	NQL092K-4R7X	COIL	4.7uH K	
L014	NQL092K-4R7X	COIL	4.7uH K	
L015	NQL914M-4R7X	COIL	4.7uH M	
L016	NQL914M-4R7X	COIL	4.7uH M	
L020	NQL092K-1R5X	COIL	1.5uH K	
L021	NQL092K-1R5X	COIL	1.5uH K	
L201	NQL092K-3R3X	COIL	3.3uH K	
L202	NQL092K-3R3X	COIL	3.3uH K	
L203	NQL092K-3R3X	COIL	3.3uH K	
L301	NQL914K-100X	COIL	10uH K	
L901	NQL914K-100X	COIL	10uH K	
L902	NQL914K-100X	COIL	10uH K	
L903	NQL914K-100X	COIL	10uH K	
L904	NQL914K-100X	COIL	10uH K	
K001	NQR0389-003X	FERRITE BEADS		
K002	NQR0389-003X	FERRITE BEADS		
K003	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
K901	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
K902	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
K905	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
K906	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
K907	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
K908	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
LC001	NQR0415-003X	EMI FILTER	0.47uF 16V M	
LC002	NQR0415-003X	EMI FILTER	0.47uF 16V M	
X001	NAX0644-001X	CRYSTAL	6.000000MHz	
X201	NAX0661-001X	CRYSTAL		
X301	NAX0643-001X	CRYSTAL		

PRINTED WIRING BOARD PARTS LIST [AV-32X5BU, AV-32X5SU]

MAIN P.W. BOARD ASS'Y (SML-1351A-U2)

⚠Ref No.	Part No.	Part Name	Description	Local
IC101	MSP3411GQAC1201	IC		
IC201	CXA2089Q-X	IC		
IC501	LM324D-X	IC		
IC551	LA6515	IC		
IC601	HA17558AF-X	IC		
IC651	AN5277	IC		
IC681	BH3544F-X	IC		
IC701	ATE32-32X5BU	IC	(SERVICE)	
IC901	AN78L08-T	IC		
IC902	MM1565AF-X	IC		
Q001	2SC3928A/QR/-X	TRANSISTOR		
Q002	2SC3928A/QR/-X	TRANSISTOR		
Q101	UN2213-X	DIGI TRANSISTOR		
Q201	2SC3928A/QR/-X	TRANSISTOR		
Q202	2SC3928A/QR/-X	TRANSISTOR		
Q207	UN2226-X	DIGI TRANSISTOR		
Q210	2SA1530A/QR/-X	TRANSISTOR		
Q211	UN2226-X	DIGI TRANSISTOR		
Q212	2SA1530A/QR/-X	TRANSISTOR		
Q213	UN2226-X	DIGI TRANSISTOR		
Q214	UN2226-X	DIGI TRANSISTOR		
Q215	KTA1267/YG/-T	TRANSISTOR		
Q216	2SC3928A/QR/-X	TRANSISTOR		
Q217	KTC3199/YG/-T	TRANSISTOR		
Q218	UN2226-X	DIGI TRANSISTOR		
Q219	UN2226-X	DIGI TRANSISTOR		
Q305	KTC3199/YG/-T	TRANSISTOR		
Q501	2SC3928A/QR/-X	TRANSISTOR		
Q502	2SC3928A/QR/-X	TRANSISTOR		
Q621	2SA1530A/QR/-X	TRANSISTOR		
Q623	UN2226-X	DIGI TRANSISTOR		
Q624	UN2226-X	DIGI TRANSISTOR		
Q628	UN2213-X	DIGI TRANSISTOR		
Q629	2SC3928A/QR/-X	TRANSISTOR		
Q632	2SA1530A/QR/-X	TRANSISTOR		
Q641	2SA1530A/QR/-X	TRANSISTOR		
Q642	UN2226-X	DIGI TRANSISTOR		
Q643	UN2226-X	DIGI TRANSISTOR		
Q681	UN2226-X	DIGI TRANSISTOR		
Q701	2SA1530A/QR/-X	TRANSISTOR		
Q702	2SC3928A/QR/-X	TRANSISTOR		
D201	MA8120/M/-X	Z DIODE		
D202	MA8120/M/-X	Z DIODE		
D203	MA8120/M/-X	Z DIODE		
D204	MA8120/M/-X	Z DIODE		
D205	MA8120/M/-X	Z DIODE		
D206	MA8120/M/-X	Z DIODE		
D207	MA8120/M/-X	Z DIODE		
D208	MA8120/M/-X	Z DIODE		
D209	MA8120/M/-X	Z DIODE		
D210	MA8120/M/-X	Z DIODE		
D211	MA8120/M/-X	Z DIODE		
D212	MA8120/M/-X	Z DIODE		
D501	MA111-X	SI DIODE		
D502	MA111-X	SI DIODE		
D503	MA111-X	SI DIODE		
D504	MA111-X	SI DIODE		
D623	MA111-X	SI DIODE		
D624	MA111-X	SI DIODE		
D626	MA111-X	SI DIODE		
D627	MA111-X	SI DIODE		
D629	MA111-X	SI DIODE		
D630	MA111-X	SI DIODE		
D631	MA111-X	SI DIODE		
D633	MA111-X	SI DIODE		
D651	MA8330/L/-X	Z DIODE		
D653	MA8330/L/-X	Z DIODE		
D681	MA111-X	SI DIODE		
D701	MA8056/M/-X	Z DIODE		
D702	MA8056/M/-X	Z DIODE		
D703	MA8056/M/-X	Z DIODE		
D704	MA8056/M/-X	Z DIODE		
D705	MA111-X	SI DIODE		
D981	MA111-X	SI DIODE		
D982	MA111-X	SI DIODE		
C001	NCB31HK-222X	C CAPACITOR	2200pF 50V K	
C002	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C004	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C005	QETN1CM-108Z	E CAPACITOR	1000uF 16V M	
C006	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C007	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C008	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C009	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C010	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C011	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C012	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C013	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C101	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C102	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C103	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C104	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C105	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C106	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C117	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C118	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C119	NDC31HJ-2R0X	C CAPACITOR	2pF 50V J	
C120	NDC31HJ-2R0X	C CAPACITOR	2pF 50V J	
C121	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C122	NDC31HJ-102X	C CAPACITOR	1000pF 50V J	
C123	NDC31HJ-102X	C CAPACITOR	1000pF 50V J	
C124	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C125	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C126	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C127	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C128	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C130	NDC31HJ-102X	C CAPACITOR	1000pF 50V J	
C131	NDC31HJ-102X	C CAPACITOR	1000pF 50V J	
C201	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C202	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C203	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C204	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C205	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C206	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C207	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C209	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C210	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C213	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C215	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C216	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C220	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C221	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C222	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C223	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C224	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C225	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C226	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C227	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C228	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C229	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C230	QENC1EM-106Z	BP E CAPACITOR	10uF 25V M	
C231	QENC1EM-106Z	BP E CAPACITOR	10uF 25V M	
C232	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C233	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C234	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C235	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C236	QETN1CM-477Z	E CAPACITOR	470uF 16V M	
C237	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C238	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C239	QETN1CM-477Z	E CAPACITOR	470uF 16V M	
C303	QETN1CM-227Z	E CAPACITOR	220uF 16V M	
C304	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C308	NCB31CK-224X	C CAPACITOR	0.22uF 16V K	
C309	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C310	NCB31CK-224X	C CAPACITOR	0.22uF 16V K	
C503	NDC31HJ-102X	C CAPACITOR	1000pF 50V J	
C504	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C505	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C506	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C507	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C508	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C509	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C510	NCB31EK-333X	C CAPACITOR	0.033uF 25V K	
C515	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C551	NCF31CZ-224X	C CAPACITOR	0.22uF 16V Z	
C552	NCF31CZ-224X	C CAPACITOR	0.22uF 16V Z	
C553	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C554	NCF31CZ-224X	C CAPACITOR	0.22uF 16V Z	
C555	NCF31CZ-224X	C CAPACITOR	0.22uF 16V Z	
C561	NDC31HJ-390X	C CAPACITOR	39pF 50V J	
C601	QENC1HM-105Z	BP E CAPACITOR	1uF 50V M	
C602	QENC1HM-105Z	BP E CAPACITOR	1uF 50V M	
C603	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C604	NCB31HK-153X	C CAPACITOR	0.015uF 50V K	

⚠Ref No.	Part No.	Part Name	Description Local
C605	NCB31HK-122X	C CAPACITOR	1200pF 50V K
C606	NCB31HK-153X	C CAPACITOR	0.015uF 50V K
C607	NCB31HK-122X	C CAPACITOR	1200pF 50V K
C608	NCB31HK-223X	C CAPACITOR	0.022uF 50V K
C609	NCB31HK-223X	C CAPACITOR	0.022uF 50V K
C610	QENC1CM-106Z	BP E CAPACITOR	10uF 16V M
C611	QENC1CM-106Z	BP E CAPACITOR	10uF 16V M
C623	QETN1EM-108Z	E CAPACITOR	1000uF 25V M
C624	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C641	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C642	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C643	NCB31HK-102X	C CAPACITOR	1000pF 50V K
C644	NCB31HK-102X	C CAPACITOR	1000pF 50V K
C650	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C651	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C652	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C654	QETN1HM-107Z	E CAPACITOR	100uF 50V M
C657	QETM1VM-228	E CAPACITOR	2200uF 35V M
C663	QETN1EM-108Z	E CAPACITOR	1000uF 25V M
C664	QETN1EM-108Z	E CAPACITOR	1000uF 25V M
C666	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C667	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C681	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C682	QETN1CM-337Z	E CAPACITOR	330uF 16V M
C683	QETN1CM-337Z	E CAPACITOR	330uF 16V M
C684	QENC1HM-105Z	BP E CAPACITOR	1uF 50V M
C685	QENC1HM-105Z	BP E CAPACITOR	1uF 50V M
C686	QETN1CM-476Z	E CAPACITOR	47uF 16V M
C688	NCB31HK-222X	C CAPACITOR	2200pF 50V K
C689	NCB31HK-222X	C CAPACITOR	2200pF 50V K
C691	NCB31HK-102X	C CAPACITOR	1000pF 50V K
C692	NCB31HK-102X	C CAPACITOR	1000pF 50V K
C701	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C702	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C711	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C901	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C902	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C903	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C904	NCF31AZ-105X	C CAPACITOR	1uF 10V Z
C905	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C906	NCB20JK-225X	C CAPACITOR	2.2uF 6.3V K
C907	NDC31HJ-471X	C CAPACITOR	470pF 50V J
R002	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R003	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R004	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R005	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R006	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R007	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R008	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R009	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J
R010	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J
R011	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R101	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R102	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R105	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R201	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R202	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R205	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R206	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R208	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R209	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R210	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R211	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R212	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R213	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R214	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R215	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R216	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R217	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R218	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R219	MA8120/M/-X	Z DIODE	
R220	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J
R221	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J
R222	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R226	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J
R227	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J
R228	MA8120/M/-X	Z DIODE	
R229	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R232	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R233	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R234	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R235	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R236	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R237	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R238	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R239	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R240	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R241	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R242	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R243	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R244	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R245	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R246	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R247	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R249	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R251	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J
R252	MA8120/M/-X	Z DIODE	
R253	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J
R255	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R258	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R259	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R260	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R261	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R262	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R263	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R264	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R265	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R266	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R267	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R268	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R269	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R270	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R271	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R272	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R273	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R274	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R275	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R276	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R277	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R278	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R279	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R280	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R281	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R282	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R283	QRG01GJ-101	OMF RESISTOR	100Ω 1W J
R284	QRK126J-181X	UNF C RESISTOR	180Ω 1/2W J
R285	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R286	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R287	QRK126J-151X	UNF C RESISTOR	150Ω 1/2W J
R288	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R289	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R290	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R291	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R292	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R293	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R296	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J
R297	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J
R298	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J
R311	QRK126J-391X	UNF C RESISTOR	390Ω 1/2W J
R312	NRSA63J-680X	MG RESISTOR	68Ω 1/16W J
R313	QRK126J-391X	UNF C RESISTOR	390Ω 1/2W J
R314	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
R315	NRSA63J-680X	MG RESISTOR	68Ω 1/16W J
R316	QRE141J-563Y	C RESISTOR	56kΩ 1/4W J
R317	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J
R501	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R502	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R503	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R504	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R505	NRSA63J-124X	MG RESISTOR	120kΩ 1/16W J
R506	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R507	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J
R509	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R510	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J
R511	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R512	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J
R513	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R514	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J
R515	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R516	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R517	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R518	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R519	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R520	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R521	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R523	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J
R524	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J
R525	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
R526	NRSA63J-683X	MG RESISTOR	68kΩ 1/16W J
R527	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J
R528	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R529	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R530	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J

⚠Ref No.	Part No.	Part Name	Description Local
R531	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R532	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R533	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J
R536	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J
R537	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R551	NRSA63J-124X	MG RESISTOR	120kΩ 1/16W J
R552	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J
R553	NRSA63J-683X	MG RESISTOR	68kΩ 1/16W J
R554	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R555	NRSA63J-154X	MG RESISTOR	150kΩ 1/16W J
R556	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R557	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J
R558	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R559	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R560	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R601	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R602	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R603	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R604	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R605	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R606	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R607	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R608	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R609	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R610	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R611	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R612	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R613	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R621	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R623	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R624	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R629	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R631	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R632	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J
R634	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R635	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J
R637	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R638	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J
R641	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R642	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J
R643	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J
R644	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R645	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R650	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R651	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R652	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R653	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R654	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R655	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R657	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R661	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J
R673	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R681	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R682	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R683	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R684	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R685	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R688	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R689	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R702	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R703	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R704	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R705	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R706	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R707	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R708	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R709	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R710	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
L001	QQL244K-270Z	PEAKING COIL	27uH K
L002	QQL244K-100Z	PEAKING COIL	10uH K
L003	QQL244K-100Z	PEAKING COIL	10uH K
L101	QRN143J-0R0X	C RESISTOR	0Ω 1/4W J
L102	QQL244K-4R7Z	PEAKING COIL	4.7uH K
CN001	QGB1505J1-35	CONNECTOR	B-B (1-35)
CN003	QGB1506L1-16	CONNECTOR	B-B (1-16)
CN004	QGB1506L1-16	CONNECTOR	B-B (1-16)
CN005	QGB1506L1-16	CONNECTOR	B-B (1-16)
CN00B	QJK002-041614	SIN CR C-B WIRE	
J001	QNN0596-001	PIN JACK	AUDIO OUT
K001	NQR0389-003X	FERRITE BEADS	
K101	NQR0389-003X	FERRITE BEADS	
K102	NQR0389-003X	FERRITE BEADS	
K551	QQR0621-002Z	FERRITE BEADS	
K552	QQR0621-002Z	FERRITE BEADS	
K641	NQR0199-001X	FERRITE BEADS	
K642	NQR0199-001X	FERRITE BEADS	
LC101	NQR0431-001X	EMI FILTER	0.22uF 50V Z
⚠TU001	QAU0276-002	TUNER	
X101	QAX0773-001Z	CRYSTAL	18.432000MHz

POWER & DEF P.W. BOARD ASS'Y (SML-2351A-S2)

⚠Ref No.	Part No.	Part Name	Description Local
IC401	LA78041	IC	
IC461	LM393P	IC	
IC901	STR-F6254/F7	IC	
⚠IC941	QAL0515-001	POWER TRANSF	
IC951	SE140N	IC	
IC962	L7809CP	IC	
IC963	PQ120RDA1SZ	IC	
Q461	RDN050N20	POWER MOS FET	
Q462	KTC3199/YG/-T	TRANSISTOR	
Q463	KTC3199/YG/-T	TRANSISTOR	
Q464	KTA1267/YG/-T	TRANSISTOR	
Q481	DTC124ESA-T	DIGI TRANSISTOR	
Q482	KTC3199/YG/-T	TRANSISTOR	
Q501	BSN304-T	MOS FET	
Q521	2SC5905-RL	POW TRANSISTOR	H.OUT
Q581	2SA1208/ST/Z1-T	TRANSISTOR	
Q582	DTC144ESA-T	DIGI TRANSISTOR	
Q583	KTC3199/YG/-T	TRANSISTOR	
Q941	KTC3199/YG/-T	TRANSISTOR	
Q942	KTC3199/YG/-T	TRANSISTOR	
D402	1SR35-400A-T2	SI DIODE	
D461	FR105GT-T3	SI DIODE	
D462	1SS133-T2	SI DIODE	
D463	1SS133-T2	SI DIODE	
D481	1SS133-T2	SI DIODE	
D501	1SS244-T2	SI DIODE	
D521	V11CA-C1	SI DIODE	
D522	FMV-3FU-F1	SI DIODE	
D523	MTZJ22B-T2	Z DIODE	
D525	FR105GT-T3	SI DIODE	
D541	FR105GT-T3	SI DIODE	
D542	MTZJ3.9B-T2	Z DIODE	
D551	FR105GT-T3	SI DIODE	
D552	FR105GT-T3	SI DIODE	
D553	FR105GT-T3	SI DIODE	
D582	MTZJ7.5B-T2	Z DIODE	
D583	MTZJ7.5S-T2	Z DIODE	
D584	FR105GT-T3	SI DIODE	
D901	D3SBA60	DIODE	
D902	FR107GT-T3	SI DIODE	
D904	FR105GT-T3	SI DIODE	
D905	1SS133-T2	SI DIODE	
D906	MTZJ27B-T2	Z DIODE	
D907	1SS133-T2	SI DIODE	
D910	MTZJ15B-T2	Z DIODE	
D911	MTZJ15B-T2	Z DIODE	
D931	S1WB/A/60-4101	BRIDGE DIODE	
D945	1SS133-T2	SI DIODE	
D951	RU4AM-LFT2	SI DIODE	
D952	RU4AM-LFT2	SI DIODE	
D953	FR105GT-T3	SI DIODE	
D954	HER202G-FL	SI DIODE	
D956	FSF05A20	SI DIODE	
D958	MTZJ33B-T2	Z DIODE	
D959	1SS133-T2	SI DIODE	
D981	1SS133-T2	SI DIODE	
D982	1SS133-T2	SI DIODE	
D983	1SS133-T2	SI DIODE	
C404	QFVF1HJ-104Z	MF CAPACITOR	0.1uF 50V J
C405	QDC31HJ-820Z	C CAPACITOR	82pF 50V J
C406	QETM1VM-108	E CAPACITOR	1000uF 35V M
C408	QETN1VM-337Z	E CAPACITOR	330uF 35V M
C409	QFVF1HJ-474Z	MF CAPACITOR	0.47uF 50V J
C410	QFVF1HJ-474Z	MF CAPACITOR	0.47uF 50V J
C411	QFLC2AJ-104Z	M CAPACITOR	0.1uF 100V J
C414	QCB31HK-682Z	C CAPACITOR	6800pF 50V K
C415	QDC31HJ-470Z	C CAPACITOR	47pF 50V J
C461	QEZ0414-226	BP E CAPACITOR	22uF 50V M
C462	QFN32DJ-152Z	M CAPACITOR	1500pF 200V J
C463	QFN32DJ-152Z	M CAPACITOR	1500pF 200V J
C464	QFVF1HJ-104Z	MF CAPACITOR	0.1uF 50V J
C465	QETN1HM-106Z	E CAPACITOR	10uF 50V M

⚠Ref No.	Part No.	Part Name	Description Local
C466	QFP31HJ-272Z	PP CAPACITOR	2700pF 50V J
C467	QFLC1HJ-102Z	M CAPACITOR	1000pF 50V J
C468	QETN1EM-476Z	E CAPACITOR	47uF 25V M
C470	QCS31HJ-470Z	C CAPACITOR	47pF 50V J
C471	QFLC1HJ-103Z	M CAPACITOR	0.01uF 50V J
C481	QETN1HM-105Z	E CAPACITOR	1uF 50V M
C501	QCB32HK-331Z	C CAPACITOR	330pF 500V K
C502	QFN32DK-103	M CAPACITOR	0.01uF 200V K
C503	QFVF1HJ-224Z	MF CAPACITOR	0.22uF 50V J
C521	QFZ0122-102	MPP CAPACITOR	1000pF 1.8kV H
C522	QFZ0196-123	MPP CAPACITOR	0.012uF 1.5kV H
C523	QFN32DJ-473	M CAPACITOR	0.047uF 200V J
C524	QFP32GJ-223	PP CAPACITOR	0.022uF 400V J
C526	QFZ0197-204	MPP CAPACITOR	0.2uF 250V J
C527	QFZ0197-823	MPP CAPACITOR	0.082uF 250V J
C529	QFZ0197-184	MPP CAPACITOR	0.18uF 250V J
C530	QCB32HK-561Z	C CAPACITOR	560pF 500V K
C531	QFZ0194-534	MPP CAPACITOR	0.53uF 250V J
C532	QETM2CM-227	E CAPACITOR	220uF 160V M
C533	QETN2EM-475Z	E CAPACITOR	4.7uF 250V M
C541	QFVF1HJ-105Z	MF CAPACITOR	1uF 50V J
C551	QCB32HK-152Z	C CAPACITOR	1500pF 500V K
C552	QETN1CM-108Z	E CAPACITOR	1000uF 16V M
C553	QCB32HK-152Z	C CAPACITOR	1500pF 500V K
C554	QETN1CM-108Z	E CAPACITOR	1000uF 16V M
C555	QCB32HK-102Z	C CAPACITOR	1000pF 500V K
C556	QETN2EM-106Z	E CAPACITOR	10uF 250V M
C558	QETN1CM-477Z	E CAPACITOR	470uF 16V M
C581	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C582	QETN1EM-476Z	E CAPACITOR	47uF 25V M
C583	QETN2AM-106Z	E CAPACITOR	10uF 100V M
C584	QETN1AM-227Z	E CAPACITOR	220uF 10V M
⚠C901	QFZ9072-473	MM CAPACITOR	0.047uF AC250V K
⚠C902	QFZ9072-104	MM CAPACITOR	0.1uF AC250V K
⚠C903	QFZ9072-473	MM CAPACITOR	0.047uF AC250V K
⚠C904	QCZ9054-472	C CAPACITOR	4700pF AC250V Z
⚠C905	QCZ9054-472	C CAPACITOR	4700pF AC250V Z
⚠C906	QCZ9054-472	C CAPACITOR	4700pF AC250V Z
C907	QEZ0649-227	E CAPACITOR	220uF 400V M
C908	QCB32HK-103	C CAPACITOR	0.01uF 500V K
C909	QCZ0340-391	C CAPACITOR	390pF 2kV K
C910	QETN1HM-476Z	E CAPACITOR	47uF 50V M
C911	QCB31HK-102Z	C CAPACITOR	1000pF 50V K
C912	QCZ0340-561	C CAPACITOR	560pF 2kV K
C914	QCB31HK-221Z	C CAPACITOR	220pF 50V K
C915	QFLC1HJ-104Z	M CAPACITOR	0.1uF 50V J
C916	QCB32HK-152Z	C CAPACITOR	1500pF 500V K
C917	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M
⚠C931	QCZ9054-472	C CAPACITOR	4700pF AC250V Z
⚠C932	QCZ9054-472	C CAPACITOR	4700pF AC250V Z
⚠C933	QCZ9054-472	C CAPACITOR	4700pF AC250V Z
C934	QEZ0632-226	E CAPACITOR	22uF 400V M
C941	QTMN1CM-477Z	E CAPACITOR	470uF 16V M
C942	QETN1AM-337Z	E CAPACITOR	330uF 10V M
C951	QEZ0203-227	E CAPACITOR	220uF 160V M
C952	QEZ0255-228	E CAPACITOR	2200uF 16V M
C953	QETN1CM-108Z	E CAPACITOR	1000uF 16V M
C954	QETM1VM-228	E CAPACITOR	2200uF 35V M
C956	QETM1AM-338	E CAPACITOR	3300uF 10V M
C957	QETN1AM-477Z	E CAPACITOR	470uF 10V M
C959	QFVF1HJ-684Z	MF CAPACITOR	0.68uF 50V J
C960	QCZ0325-821	C CAPACITOR	820pF 2kV K
C968	QETM1AM-338	E CAPACITOR	3300uF 10V M
⚠C991	QCZ9079-222	C CAPACITOR	2200pF AC250V M
⚠C993	QCZ9079-471	C CAPACITOR	470pF AC250V K
R401	QRE141J-562Y	C RESISTOR	5.6kΩ 1/4W J
R402	QRE141J-562Y	C RESISTOR	5.6kΩ 1/4W J
R403	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J
R404	QRX01GJ-1R0	MF RESISTOR	1Ω 1W J
R405	QRL029J-151	OMF RESISTOR	150Ω 2W J
R406	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J
R407	QRX01GJ-1R5	MF RESISTOR	1.5Ω 1W J
R408	QRX01GJ-1R5	MF RESISTOR	1.5Ω 1W J
R409	QRE141J-823Y	C RESISTOR	82kΩ 1/4W J
R410	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J
R461	QRG029J-820	OMF RESISTOR	82Ω 2W J
R462	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J
R463	QRE141J-682Y	C RESISTOR	6.8kΩ 1/4W J
R464	QRX01GJ-3R3	MF RESISTOR	3.3Ω 1W J
R468	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J
R469	QRE141J-272Y	C RESISTOR	2.7kΩ 1/4W J
R471	QRE141J-391Y	C RESISTOR	390Ω 1/4W J
R472	QRA14CF-1002Y	CMF RESISTOR	10kΩ 1/4W F
R473	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J
R474	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J
R475	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J

⚠Ref No.	Part No.	Part Name	Description Local
R476	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J
R477	QRE141J-563Y	C RESISTOR	56kΩ 1/4W J
R478	QRE141J-333Y	C RESISTOR	33kΩ 1/4W J
R481	QRE141J-224Y	C RESISTOR	220kΩ 1/4W J
R482	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J
R501	QRE141J-471Y	C RESISTOR	470Ω 1/4W J
R502	QRE141J-123Y	C RESISTOR	12kΩ 1/4W J
R503	QRE121J-152Y	C RESISTOR	1.5kΩ 1/2W J
R504	QRL039J-272	OMF RESISTOR	2.7kΩ 3W J
R505	QRL039J-332	OMF RESISTOR	3.3kΩ 3W J
R506	QRE121J-5R6Y	C RESISTOR	5.6Ω 1/2W J
R521	QRE121J-471Y	C RESISTOR	470Ω 1/2W J
R522	QRE141J-273Y	C RESISTOR	27kΩ 1/4W J
R523	QRE141J-123Y	C RESISTOR	12kΩ 1/4W J
R524	QRC121K-152Z	COMP RESISTOR	1.5kΩ 1/2W K
R525	QRL039J-103	OMF RESISTOR	10kΩ 3W J
R541	QRE141J-152Y	C RESISTOR	1.5kΩ 1/4W J
R542	QRE141J-332Y	C RESISTOR	3.3kΩ 1/4W J
R543	QRE121J-272Y	C RESISTOR	2.7kΩ 1/2W J
R551	QRT039J-3R3	MF RESISTOR	3.3Ω 3W J
R552	QRT039J-3R3	MF RESISTOR	3.3Ω 3W J
R581	QRF154K-4R7	UNF WW RESISTOR	4.7Ω 15W K
R582	QRE141J-681Y	C RESISTOR	680Ω 1/4W J
R583	QRE121J-682Y	C RESISTOR	6.8kΩ 1/2W J
R584	QRE141J-183Y	C RESISTOR	18kΩ 1/4W J
R585	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J
R586	QRA14CF-7501Y	CMF RESISTOR	7.5kΩ 1/4W F
R587	QRA14CF-2201Y	CMF RESISTOR	2.2kΩ 1/4W F
R588	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J
⚠R591	QRZ9017-4R7	FUSI RESISTOR	4.7Ω 1/4W J
R901	QRE121J-331Y	C RESISTOR	330Ω 1/2W J
R902	QRF054K-3R3	UNF WW RESISTOR	3.3Ω 5W K
R903	QRF104K-3R9	UNF WW RESISTOR	3.9Ω 10W K
R904	QRL039J-683	OMF RESISTOR	68kΩ 3W J
R905	QRE121J-474Y	C RESISTOR	470kΩ 1/2W J
R906	QRE121J-474Y	C RESISTOR	470kΩ 1/2W J
R908	QRL039J-823	OMF RESISTOR	82kΩ 3W J
R909	QRL039J-823	OMF RESISTOR	82kΩ 3W J
R910	QRE121J-680Y	C RESISTOR	68Ω 1/2W J
R911	QRE121J-332Y	C RESISTOR	3.3kΩ 1/2W J
R914	QRZ0237-R10	UNF WW RESISTOR	0.1Ω
R915	QRE121J-221Y	C RESISTOR	220Ω 1/2W J
R916	QRE121J-152Y	C RESISTOR	1.5kΩ 1/2W J
R917	QRE141J-154Y	C RESISTOR	150kΩ 1/4W J
R944	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J
R945	QRE141J-563Y	C RESISTOR	56kΩ 1/4W J
R946	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J
R949	QRE141J-334Y	C RESISTOR	330kΩ 1/4W J
R951	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J
R952	QRL039J-223	OMF RESISTOR	22kΩ 3W J
R953	QRT039J-R33	MF RESISTOR	0.33Ω 3W J
R981	QRE141J-153Y	C RESISTOR	15kΩ 1/4W J
R982	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J
⚠R991	QRZ9046-825Z	C RESISTOR	8.2MΩ 1/2W K
L461	QQR1195-001	CHOKE COIL	
L462	QQR1422-001	CHOKE COIL	
L521	QQLZ031-180	CHOKE COIL	18uH
L522	QQR1191-001	LINEARITY COIL	
L551	QQLZ026-560	COIL	56uH Å}7%
L901	QQL401K-100Z	CHOKE COIL	10uH K
L902	QQL401K-100Z	CHOKE COIL	10uH K
⚠L903	QQR1200-001	CHOKE COIL	
L941	QQL26AM-4R7Z	CHOKE COIL	4.7uH M
L942	QQL26AK-220Z	CHOKE COIL	22uH K
L951	QQLZ026-460	COIL	46uH Å}7%
T501	QQR1111-001	LINEARITY COIL	
⚠T901	QQS0258-001	SW TRANSF	
CN003	QGB1506M1-16	CONNECTOR	B-B (1-16)
CN004	QGB1506M1-16	CONNECTOR	B-B (1-16)
CN005	QGB1506M1-16	CONNECTOR	B-B (1-16)
CN0HV	CHC802T-05N-J	LV CONNECTOR	
⚠CP931	QMFZ052-2R0-E	FUSE	2A AC250V
⚠CP951	ICP-N75-Y	IC PROTECTOR	2.7A
⚠CP952	ICP-N75-Y	IC PROTECTOR	2.7A
⚠CP954	ICP-N75-Y	IC PROTECTOR	2.7A
K401	QQR0621-002Z	FERRITE BEADS	
K522	QQR1114-001Z	FERRITE BEADS	
K523	QQR1114-001Z	FERRITE BEADS	
K524	QQR1114-001Z	FERRITE BEADS	
K901	QQR1113-001Z	FERRITE BEADS	
K952	QQR0621-002Z	FERRITE BEADS	
K953	QQR0621-002Z	FERRITE BEADS	
K955	QQR0621-002Z	FERRITE BEADS	
⚠LF901	QQR1095-001	LINE FILTER	
⚠PC901	PC123Y22FZ	PHOTO COUPLER	

⚠Ref No.	Part No.	Part Name	Description	Local
⚠RY941	QSK0099-001	RELAY		
⚠TH901	QAD0121-9R0	P THERMISTOR	9Ω	

CRT SOCKET P.W. BOARD ASS'Y (SML-3303A-U2)

⚠Ref No.	Part No.	Part Name	Description	Local
IC3201	TDA6111Q	IC		
IC3202	TDA6111Q	IC		
IC3203	TDA6111Q	IC		
Q3104	2SC3928A/QR/-X	TRANSISTOR		
Q3105	2SC1627A/OY/-T	SI TRANSISTOR		
Q3108	2SA2005/DE/	POW TRANSISTOR		
Q3109	2SC5511/DE/	POW TRANSISTOR		
Q3301	2SA1530A/QR/-X	TRANSISTOR		
Q3303	2SA1530A/QR/-X	TRANSISTOR		
Q3304	2SC3928A/QR/-X	TRANSISTOR		
D3102	MA111-X	SI DIODE		
D3103	FR105GT-T3	SI DIODE		
D3104	FR105GT-T3	SI DIODE		
D3201	FR105SGT-T2	SI DIODE		
D3202	FR105SGT-T2	SI DIODE		
D3203	FR105SGT-T2	SI DIODE		
D3204	FR105GT-T3	SI DIODE		
D3205	1N4003SG-T2	SI DIODE		
D3206	1N4003SG-T2	SI DIODE		
D3207	1N4003SG-T2	SI DIODE		
D3208	MA8062/M/-X	Z DIODE		
D3209	MA8130/H/-X	Z DIODE		
D3210	MA8130/H/-X	Z DIODE		
D3301	MA111-X	SI DIODE		
D3302	MA111-X	SI DIODE		
D3303	MA111-X	SI DIODE		
D3306	MA8036-X	Z DIODE		
C3106	QETN1HM-335Z	E CAPACITOR	3.3uF	50V M
C3107	QETN1CM-107Z	E CAPACITOR	100uF	16V M
C3110	QETN2CM-106Z	E CAPACITOR	10uF	160V M
C3111	QCB32HK-472Z	C CAPACITOR	4700pF	500V K
C3113	QETN2CM-106Z	E CAPACITOR	10uF	160V M
C3114	QCB32HK-472Z	C CAPACITOR	4700pF	500V K
C3116	QETN1AM-107Z	E CAPACITOR	100uF	10V M
C3117	QETN1AM-107Z	E CAPACITOR	100uF	10V M
C3118	QEHR1AM-337Z	E CAPACITOR	330uF	10V M
C3120	NDC31HJ-561X	C CAPACITOR	560pF	50V J
C3201	NDC31HJ-8R0X	C CAPACITOR	8pF	50V J
C3202	NDC31HJ-8R0X	C CAPACITOR	8pF	50V J
C3203	NDC31HJ-8R0X	C CAPACITOR	8pF	50V J
C3204	NCF31CZ-104X	C CAPACITOR	0.1uF	16V Z
C3205	NCF31CZ-104X	C CAPACITOR	0.1uF	16V Z
C3206	NCF31CZ-104X	C CAPACITOR	0.1uF	16V Z
C3207	QETN1EM-476Z	E CAPACITOR	47uF	25V M
C3208	QEHR1VM-476Z	E CAPACITOR	47uF	35V M
C3209	QEHR1VM-476Z	E CAPACITOR	47uF	35V M
C3210	QFKC2EK-104Z	MM CAPACITOR	0.1uF	250V K
C3211	QFKC2EK-104Z	MM CAPACITOR	0.1uF	250V K
C3212	QFKC2EK-104Z	MM CAPACITOR	0.1uF	250V K
C3213	NDC31HJ-181X	C CAPACITOR	180pF	50V J
C3214	NDC31HJ-181X	C CAPACITOR	180pF	50V J
C3215	NDC31HJ-181X	C CAPACITOR	180pF	50V J
C3216	QETN1CM-227Z	E CAPACITOR	220uF	16V M
C3218	QETM2EM-336	E CAPACITOR	33uF	250V M
C3219	QFZ0097-223	MM CAPACITOR	0.022uF	1.25KV M
C3221	QETN2EM-106Z	E CAPACITOR	10uF	250V M
C3222	QETN2EM-106Z	E CAPACITOR	10uF	250V M
C3223	QEHR2EM-106Z	E CAPACITOR	10uF	250V M
C3224	QETN2EM-106Z	E CAPACITOR	10uF	250V M
C3225	NDC31HJ-151X	C CAPACITOR	150pF	50V J
C3303	NCB31CK-563X	C CAPACITOR	0.056uF	16V K
R3103	NRSA63J-101X	MG RESISTOR	100Ω	1/16W J
R3109	NRSA63J-153X	MG RESISTOR	15kΩ	1/16W J
R3112	NRSA63J-272X	MG RESISTOR	2.7kΩ	1/16W J
R3114	NRSA63J-152X	MG RESISTOR	1.5kΩ	1/16W J
R3115	NRSA63J-560X	MG RESISTOR	56Ω	1/16W J
R3116	QRG01GJ-101	OMF RESISTOR	100Ω	1W J
R3117	NRSA63J-331X	MG RESISTOR	330Ω	1/16W J
R3122	NRSA63J-122X	MG RESISTOR	1.2kΩ	1/16W J
R3123	QRE121J-563Y	C RESISTOR	56kΩ	1/2W J
R3124	NRSA63J-470X	MG RESISTOR	47Ω	1/16W J
R3125	QRE121J-563Y	C RESISTOR	56kΩ	1/2W J
R3126	NRSA63J-470X	MG RESISTOR	47Ω	1/16W J
R3127	NRSA63J-122X	MG RESISTOR	1.2kΩ	1/16W J
R3128	NRSA63J-390X	MG RESISTOR	39Ω	1/16W J
R3129	QRE121J-2R7Y	C RESISTOR	2.7Ω	1/2W J
R3130	QRE121J-2R7Y	C RESISTOR	2.7Ω	1/2W J
R3131	NRSA63J-390X	MG RESISTOR	39Ω	1/16W J
R3132	NRSA63J-121X	MG RESISTOR	120Ω	1/16W J
R3133	QRL029J-681	OMF RESISTOR	680Ω	2W J
⚠R3134	QRZ9021-561	FUSI RESISTOR	560Ω	1W J
R3201	NRSA63J-102X	MG RESISTOR	1kΩ	1/16W J
R3202	NRSA63J-102X	MG RESISTOR	1kΩ	1/16W J
R3203	NRSA63J-102X	MG RESISTOR	1kΩ	1/16W J
R3208	NRSA63J-154X	MG RESISTOR	150kΩ	1/16W J
R3209	NRSA63J-101X	MG RESISTOR	100Ω	1/16W J
R3218	NRSA63J-272X	MG RESISTOR	2.7kΩ	1/16W J
R3219	NRSA63J-272X	MG RESISTOR	2.7kΩ	1/16W J
R3220	NRSA63J-272X	MG RESISTOR	2.7kΩ	1/16W J
R3222	NRSA63J-103X	MG RESISTOR	10kΩ	1/16W J
R3223	NRSA63J-272X	MG RESISTOR	2.7kΩ	1/16W J
R3224	QRL029J-104-F	OMF RESISTOR	100kΩ	2W J
R3225	QRL029J-104-F	OMF RESISTOR	100kΩ	2W J
R3226	QRL029J-104-F	OMF RESISTOR	100kΩ	2W J
R3227	NRSA63J-332X	MG RESISTOR	3.3kΩ	1/16W J
R3228	NRSA63J-332X	MG RESISTOR	3.3kΩ	1/16W J
R3229	NRSA63J-332X	MG RESISTOR	3.3kΩ	1/16W J
R3230	QRZ0107-152Z	C RESISTOR	1.5kΩ	1/2W K
R3231	QRZ0107-152Z	C RESISTOR	1.5kΩ	1/2W K
R3232	QRZ0107-152Z	C RESISTOR	1.5kΩ	1/2W K
R3234	QRZ0107-474Z	C RESISTOR	470kΩ	1/2W K
R3235	QRZ0107-102Z	C RESISTOR	1kΩ	1/2W K
R3236	QRZ0107-105Z	C RESISTOR	1MΩ	1/2W K
R3237	NRSA63J-103X	MG RESISTOR	10kΩ	1/16W J
R3239	NRSA63J-102X	MG RESISTOR	1kΩ	1/16W J
R3240	NRSA63J-562X	MG RESISTOR	5.6kΩ	1/16W J
R3241	NRSA63J-562X	MG RESISTOR	5.6kΩ	1/16W J
R3242	NRSA63J-562X	MG RESISTOR	5.6kΩ	1/16W J
R3301	QRE121J-474Y	C RESISTOR	470kΩ	1/2W J
R3302	QRE121J-474Y	C RESISTOR	470kΩ	1/2W J
R3303	NRSA63J-223X	MG RESISTOR	22kΩ	1/16W J
R3304	NRSA63J-223X	MG RESISTOR	22kΩ	1/16W J
R3305	NRSA63J-562X	MG RESISTOR	5.6kΩ	1/16W J
R3306	NRSA63J-392X	MG RESISTOR	3.9kΩ	1/16W J
R3308	NRSA63J-0R0X	MG RESISTOR	0Ω	1/16W J
R3311	NRSA63J-101X	MG RESISTOR	100Ω	1/16W J
R3312	NRSA63J-120X	MG RESISTOR	12Ω	1/16W J
R3313	NRSA63J-331X	MG RESISTOR	330Ω	1/16W J
L3204	QQL26AJ-102Z	PEAKING COIL	1mH	J
CN300G	QJK002-063231	SIN CR C-B WIRE		
CN300R	QJB003-093626	SIN ID C-B WIRE		
CN30E1	CE41507-001P	LV CONNECTOR		
CN3VM1	WJK0167-001A	E-SI C WIRE C-B		
K3101	QQR1114-001Z	FERRITE BEADS		
K3103	QQR1114-001Z	FERRITE BEADS		
K3104	QQR1114-001Z	FERRITE BEADS		
K3105	QQR0621-002Z	FERRITE BEADS		
K3202	QQR1113-001Z	FERRITE BEADS		
SG3201	QAF0056-501Z	SURGE ABSORBER	500V	M
SG3202	QAF0056-501Z	SURGE ABSORBER	500V	M
SG3203	QAF0056-501Z	SURGE ABSORBER	500V	M
⚠SK3001	QNZ0536-001	CRT SOCKET		

SIDE CONTROL P.W. BOARD ASS'Y (SML-8132A-U2)

REFER TO PARTS LIST IN PAGE 3-9 FOR THIS P.W. BOARD.

FRONT CONTROL P.W. BOARD ASS'Y (SML-8301A-U2)

REFER TO PARTS LIST IN PAGE 3-10 FOR THIS P.W. BOARD.

AV JACK P.W. BOARD ASS'Y (SML0J301A-U2)

REFER TO PARTS LIST IN PAGE 3-10 FOR THIS P.W. BOARD.

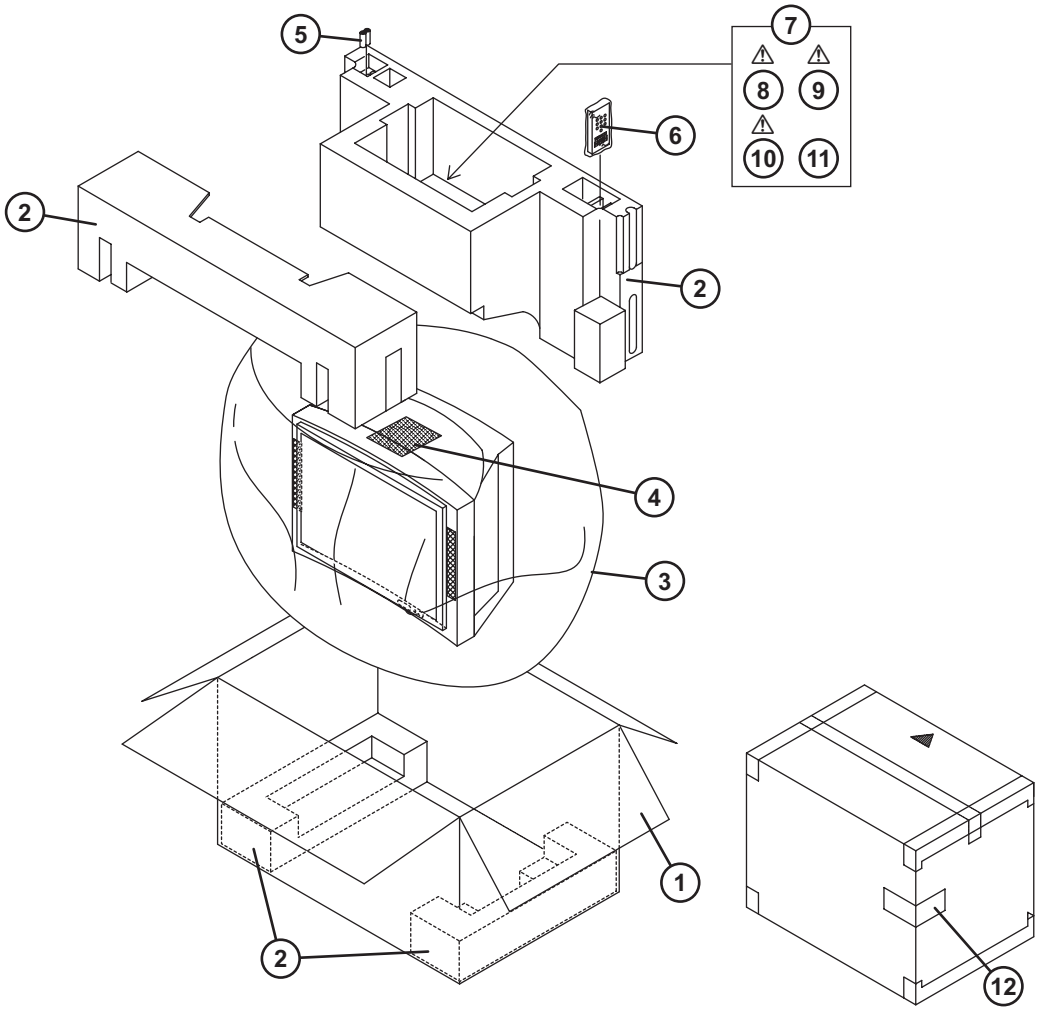
100HZ PB ASS'Y (SML0Z351A-U2)

REFER TO PARTS LIST IN PAGE 3-10 FOR THIS P.W. BOARD.

REMOTE CONTROL UNIT PARTS LIST (RM-C64H-1C)

⚠	Ref.No.	Part No.	Part Name	Description	Local
		2AA030650	BATTERY COVER		
		2AA030646	SLIDE DOOR		

PACKING



PACKING PARTS LIST

⚠	Ref.No.	Part No.	Part Name	Description	Local
	1	GA10002-003A-U	PACKING CASE		AV-28X5BU,AV-28X5SU
	1	GA10002-004A-U	PACKING CASE		AV-32X5BU,AV-32X5SU
	2	LC11859-001B-U	CUSHION ASSY	4pcs in 1set	AV-28X5BU
	2	LC11859-001C-U	CUSHION ASSY	4pcs in 1set	AV-28X5SU
	2	LC11861-001C-U	CUSHION ASSY	4pcs in 1set	AV-32X5BU,AV-32X5SU
	3	AEM1047-B02-E	POLY BAG		AV-28X5BU,AV-32X5BU
	3	AEM1078-001A-U	POLY BAG		AV-28X5SU,AV-32X5SU
	4	AEM4192-001A-U	CAUTION SHEET		
	5	----------	BATTERY	R6P/AA(x2)	
	6	RM-C64H-1C	REMOCON UNIT		
	7	AEM3021-003B-E	DOCUMENT BAGS		
⚠	8	LCT1797-001A-U	INST BOOK	English/German/French/Dutch/Spanish/Italian/Portuguese	
⚠	9	LCT1798-001A-U	INST BOOK	Swedish/Norwegian/Finn/Danish	
⚠	10	LCT1799-001A-U	INST BOOK	Russian/Czech/Polish/Hungarian/Romanian/Bulgarian	
	11	----------	WARRANTY CARD	BT-54023-1E	AV-28X5BU,AV-32X5BU
	11	----------	WARRANTY CARD	BT-54026-1E	AV-28X5SU,AV-32X5SU
	12	GA10001-025A-U	EURO LABEL		AV-28X5BU
	12	GA10001-024A-U	EURO LABEL		AV-28X5SU
	12	GA10001-023A-U	EURO LABEL		AV-32X5BU
	12	GA10001-022A-U	EURO LABEL		AV-32X5SU

JVC

SCHEMATIC DIAGRAMS

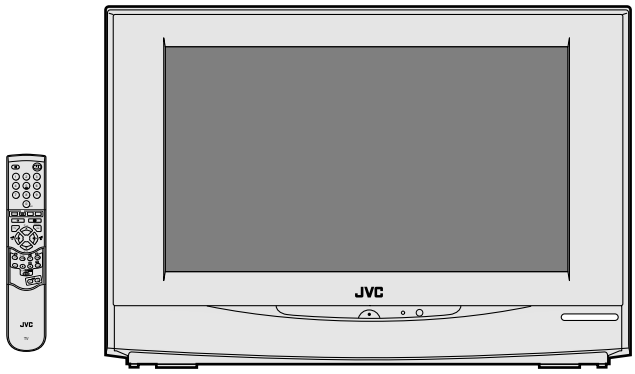
COLOUR TELEVISION

AV-28X5BU, AV-28X5SU, AV-32X5BU, AV-32X5SU

CD-ROM No.SML200504

BASIC CHASSIS
ML2

T-V LINK



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No.YA262
2005/4

AV-28X5BU, AV-28X5SU, AV-32X5BU, AV-32X5SU

STANDARD CIRCUIT DIAGRAM

■ NOTE ON USING CIRCUIT DIAGRAMS

1.SAFETY

The components identified by the ⚠ symbol and shading are critical for safety. For continued safety replace safety ciritical components only with manufactures recommended parts.

2.SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

(1)Input signal	: Colour bar signal
(2)Setting positions of each knob/button and variable resistor	: Original setting position when shipped
(3)Internal resistance of tester	: DC 20kΩ/V
(4)Oscilloscope sweeping time	: H ⇒ 20μs / div
	: V ⇒ 5ms / div
	: Othters ⇒ Sweeping time is specified
(5)Voltage values	: All DC voltage values

∗ Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

3.INDICATION OF PARTS SYMBOL [EXAMPLE]

● In the PW board : R209 → R209

4.INDICATIONS ON THE CIRCUIT DIAGRAM

(1)Resistors

● Resistance value

No unit	: [Ω]
K	: [kΩ]
M	: [MΩ]

● Rated allowable power

No indication	: 1/16 [W]
Others	: As specified

● Type

No indication	: Carbon resistor
OMR	: Oxide metal film resistor
MFR	: Metal film resistor
MPR	: Metal plate resistor
UNFR	: Uninflammable resistor
FR	: Fusible resistor

∗ Composition resistor 1/2 [W] is specified as 1/2S or Comp.

(2)Capacitors

● Capacitance value

1 or higher	: [pF]
less than 1	: [μF]

● Withstand voltage

No indication	: DC50[V]
Others	: DC withstand voltage [V]
AC indicated	: AC withstand voltage [V]

∗ Electrolytic Capacitors

47/50[Example]: Capacitance value [μF]/withstand voltage[V]

● Type

No indication	: Ceramic capacitor
MM	: Metalized mylar capacitor
PP	: Polypropylene capacitor
MPP	: Metalized polypropylene capacitor
MF	: Metalized film capacitor
TF	: Thin film capacitor
BP	: Bipolar electrolytic capacitor
TAN	: Tantalum capacitor

(3)Coils

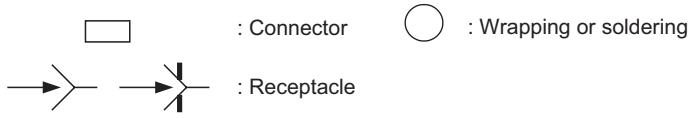
No unit	: [μH]
Others	: As specified

(4)Power Supply

∗ Respective voltage values are indicated

(5)Test point

(6)Connecting method



(7)Ground symbol

5.NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND and the ISOLATED(NEUTRAL) : (⏚) side GND. Therefore, care must be taken for the following points.

(1)Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. if the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.

(2)Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected, a fuse or any parts will be broken.

◆ **Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.**

NOTE

◆ **Due improvement in performance, some part numbers show in the circuit diagram may not agree with those indicated in the part list.**
When ordering parts, please use the numbers that appear in the Parts List.

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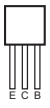
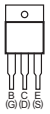
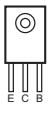
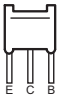
USING P.W. BOARD

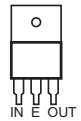
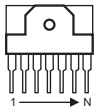
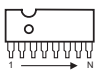
P.W.B ASS'Y name	AV-28X5BU	AV-28X5SU	AV-32X5BU	AV-32X5SU
MAIN P.W. BOARD	SML-1352A-U2	←	SML-1351A-U2	←
POWER & DEF PWB BOARD	SML-2352A-U2	←	SML-2351A-U2	←
MICOM/100Hz	SML0Z351A-U2	←	←	←
CRT SOCKET P.W. BOARD	SML-3302A-U2	←	SML-3303A-U2	←
AV JACK P.W. BOARD	SML0J301A-U2	←	←	←
SIDE CONTROL P.W. BOARD	SML-8132A-U2	←	←	←
FRONT P.W. BOARD	SML-8301A-U2	←	←	←

SEMICONDUCTOR SHAPES

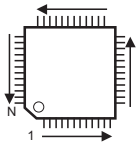
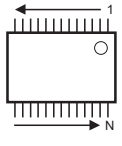
TRANSISTOR

BOTTOM VIEW	FRONT VIEW				TOP VIEW
					CHIP TR

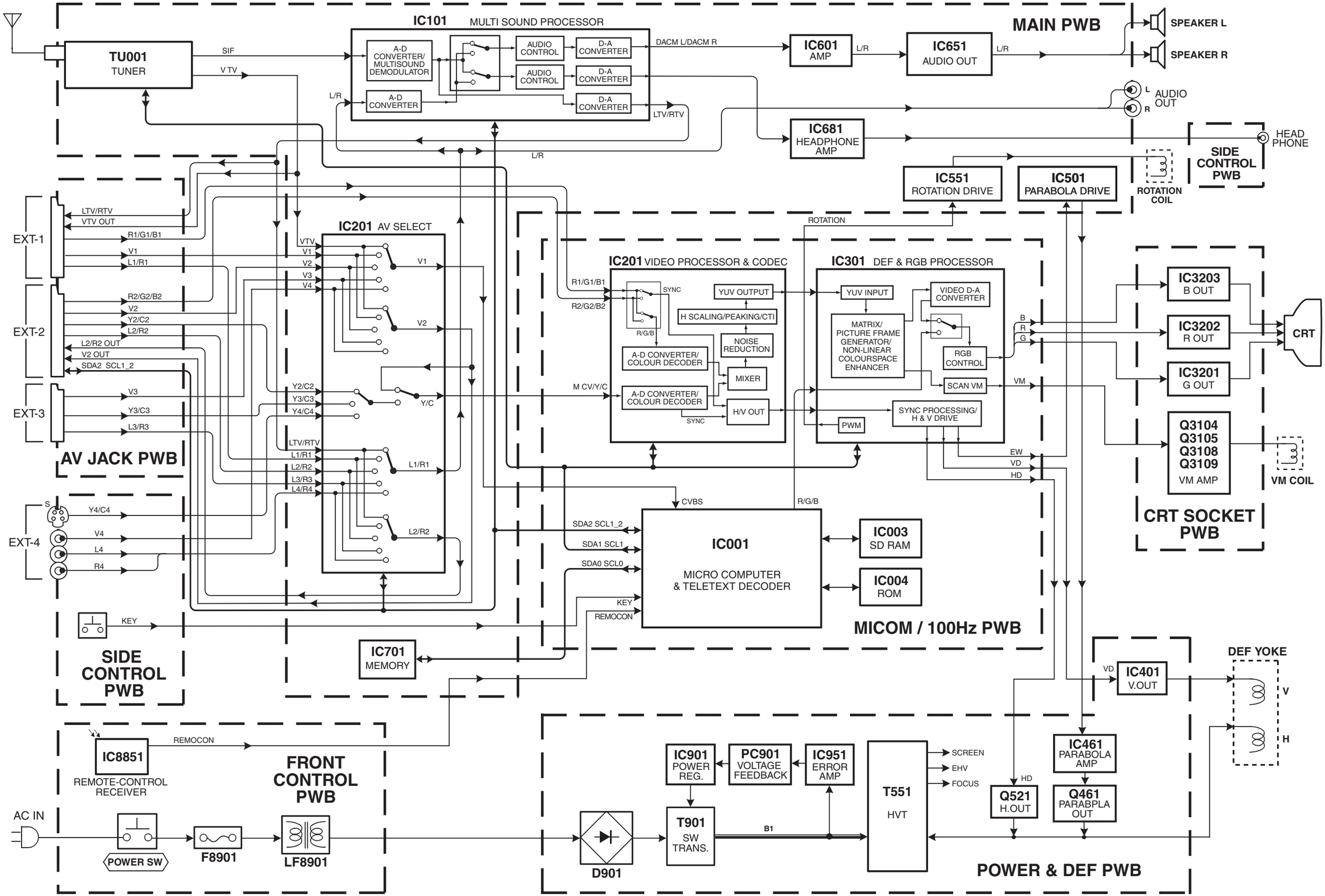
IC

BOTTOM VIEW	FRONT VIEW			TOP VIEW
				

CHIP IC

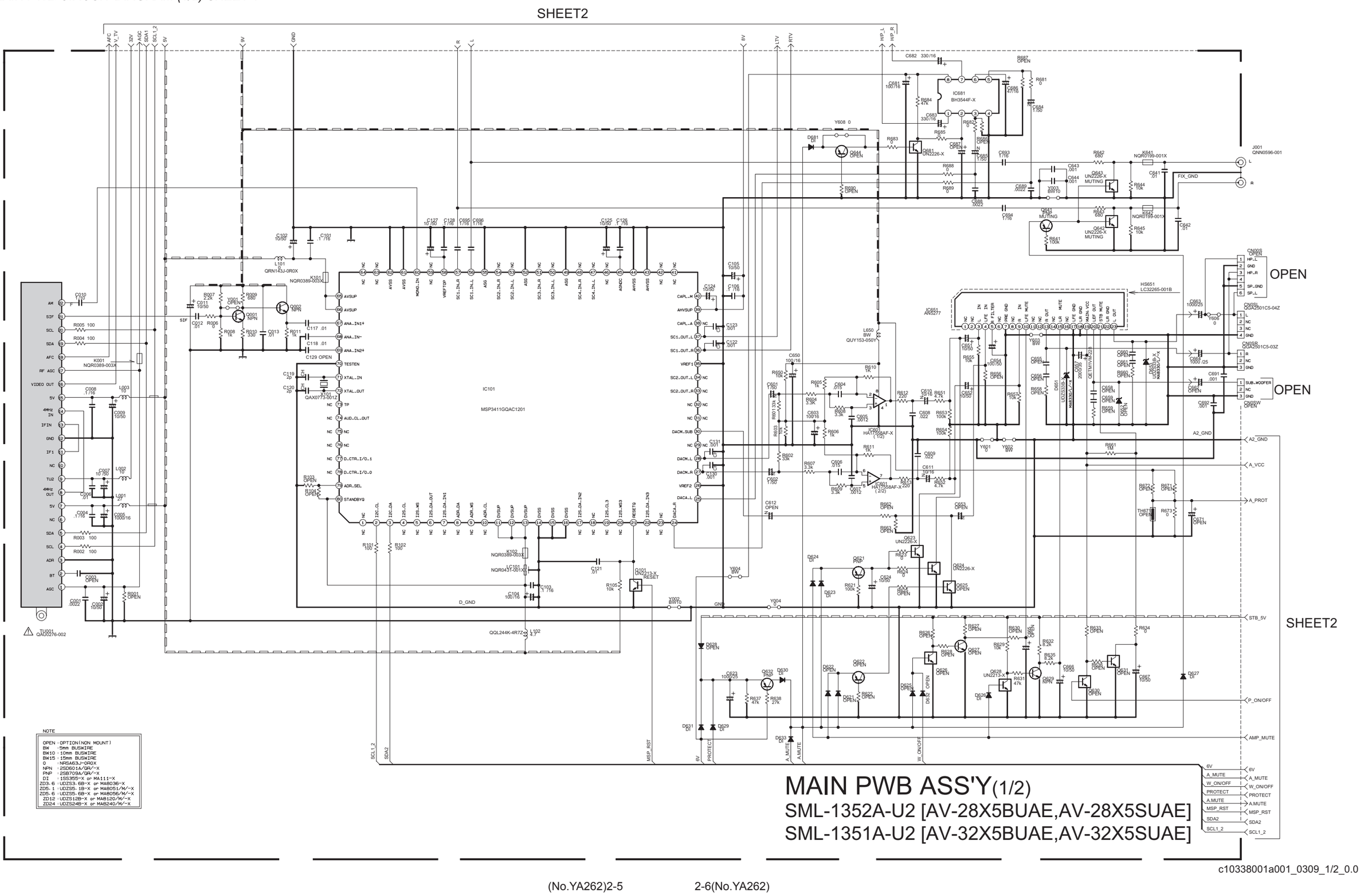
TOP VIEW		
		

BLOCK DIAGRAM



CIRCUIT DIAGRAMS

MAIN PWB CIRCUIT DIAGRAM (1/2) SHEET 1



MAIN PWB ASS'Y(1/2)

SML-1352A-U2 [AV-28X5BUAE,AV-28X5SUAE]

SML-1351A-U2 [AV-32X5BUAE,AV-32X5SUAE]

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MAIN PWB CIRCUIT DIAGRAM (2/2) SHEET 2

MICOM/100Hz(1/2)
CN002 (SHEET6)

MICOM/100Hz(2/2)
CN002 (SHEET7)

SHEET1

SIDE CONTROL
PWB ASS'Y
CN810F
(SHEET8)

AV JACK
PWB ASS'Y
CN0001
(SHEET5)

SHEET1

SIDE CPNTROL
PWB ASS'Y
CN810K (SHEET8)

FRONT
PWB ASS'Y
CN800B (SHEET9)

CRT SOCKET
PWB ASS'Y
CN300R (SHEET4)

POWER & DEF
PWB ASS'Y
CN003
(SHEET3)

POWER & DEF
PWB ASS'Y
CN004
(SHEET3)

POWER & DEF
PWB ASS'Y
CN005
(SHEET3)

MAIN PWB ASS'Y(2/2)

SML-1352A-U2 [AV-28X5BUAE,AV-28X5SUAE]

SML-1351A-U2 [AV-32X5BUAE,AV-32X5SUAE]

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POWER & DEF PWB CIRCUIT DIAGRAM SHEET 3

FRONT PWB ASS'Y CN800W (SHEET9)

MAIN PWB ASS'Y (2/2) CN003 (SHEET2)

MAIN PWB ASS'Y (2/2) CN004 (SHEET2)

MAIN PWB ASS'Y (2/2) CN005 (SHEET2)

CRT SOCKET PWB ASS'Y CN300G (SHEET4)

LIVE (⊥) ISOLATED (⊥)

*DIFFERENCE LISTS

	32inch	28inch
	SML-2351A	SML-2352A
R463	5.6k	9.1k 1%
R464	QRX0150J -3R3	QRX0150J -2R7
C524	QFP232J -223	QFP232J -223
C526	QF20197 -204	QF20197 -204
R586	QRA143CF -750Y	QRA143CF -750Y
R587	QRA143CF -2320Y	QRA143CF -2320Y
L522	QQR1195 -001	QQR1191 -002
C527	QF20197 -473	QF20197 -124
C529	QF20197 -154	QF20197 -154
Q521	2SC5905 -TL	2SC5904 -TL
C521	QF20122 -152	QF20122 -112
C523	QFN32DJ -473	QFN22DJ -393
R522	QRE1413J -272Y	QRE1413J -333Y
R523	QRE1413J -122Y	QRE1413J -102Y

	32inch	28inch
	SML-2351A	SML-2352A
R555	OPEN	OPEN
L551	QQL2526 -560	QQL2526 -540
R551	QRT033J -3R3	QRT039J -3R3
R552	QRT033J -3R3	QRT039J -3R3
HS521	LC31212 -001B	LC31212 -001C
C555	QCB33HK -0022	OPEN
R481	QRE1413J -224Y	QRE1413J -274Y
IC961	OPEN	OPEN
C522	QF20106 -223	QF20200 -113
R541	1.5k	2.2k
R542	3.3k	2.2k
R504	2.7k	2.2k
R505	3.3k	2.2k

■ NOTE
NPN : KTC3199/YG/-T
PNP : KTA1267/YG/-T
DI : 1SS133-T2
FR105 : FR105GT-T3

BW : BUSWIRE
OPEN : NON MOUNT (OPTION)

POWER & DEF PWB ASS'Y

SML-2352A-U2 [AV-28X5BU, AV-28X5SU]

SML-2351A-U2 [AV-32X5BU, AV-32X5SU]

CRT SOCKET PWB ASS'Y

SML-3302A-U2 [AV-28X5BUAE,AV-28X5SUAE]
SML-3303A-U2 [AV-32X5BUAE,AV-32X5SUAE]

MAIN PWB ASS'Y(2/2) CN00R (SHEET2)

POWER & DEF PWB ASS'Y CN00G (SHEET3)

IC3203 TDA6111Q/N4 B-OUT — HS3203 LC31150-002B
IC3202 TDA6111Q/N4 R-OUT — HS3202 LC31150-002B
IC3201 TDA6111Q/N4 G-OUT — HS3201 LC31150-002B

NOTE
NPN : 2SD601A/QR/-X
PNP : 2SB709A/QR/-X
DI : 1SS355-X or MA111-X
BW : BUS WIRE
OPEN : NON-MOUNT

*DIFFERENCE PARTS LIST

	SML-3301A	SML-3302A	SML-3303A	SML-3701A	SML-3702A
C3201	8p	8p	8p	12p	12p
C3202	8p	8p	8p	12p	12p
C3203	8p	8p	8p	12p	12p
CN3VM1	OPEN	OPEN	WJK0167-001A-E	OPEN	OPEN
CN3VM2	QGA2501C5-03Z	QGA2501C5-03Z	OPEN	QGA2501C5-03Z	QGA2501C5-03Z
C3213	180p	180p	180p	680p	180p
C3214	180p	180p	180p	680p	180p
C3215	180p	180p	180p	680p	180p
R3218	2.7k	2.7k	2.7k	5.6k	2.7k
R3219	2.7k	2.7k	2.7k	5.6k	2.7k
R3220	2.7k	2.7k	2.7k	5.6k	2.7k
R3227	3.3k	3.3k	3.3k	0	3.3k
R3228	3.3k	3.3k	3.3k	0	3.3k
R3229	3.3k	3.3k	3.3k	0	3.3k
R3230	1.5k	1.5k	1.5k	1k	1.5k
R3231	1.5k	1.5k	1.5k	1k	1.5k
R3232	1.5k	1.5k	1.5k	1k	1.5k

VO1(ITC) PICTURE TUBE		MODEL	
32"	W76ERF112X044	AV-32X5SUA AV-32X5BUA	
28"	W66QDE993X996	AV-28X5SUA AV-28X5BUA AV-28H5SUA AV-28H5BUA AV-28H5RA	AV-28H50SUA AV-28H55KA AV-28H55LA AV-28H5BLA AV-28EX5BKA
32"	W76QEN693X100	AV-32H5SUA AV-32H5BUA AV-32H55KA AV-32H5SRA	AV-32H50SUA AV-32H57SUA AV-32EX5BKA

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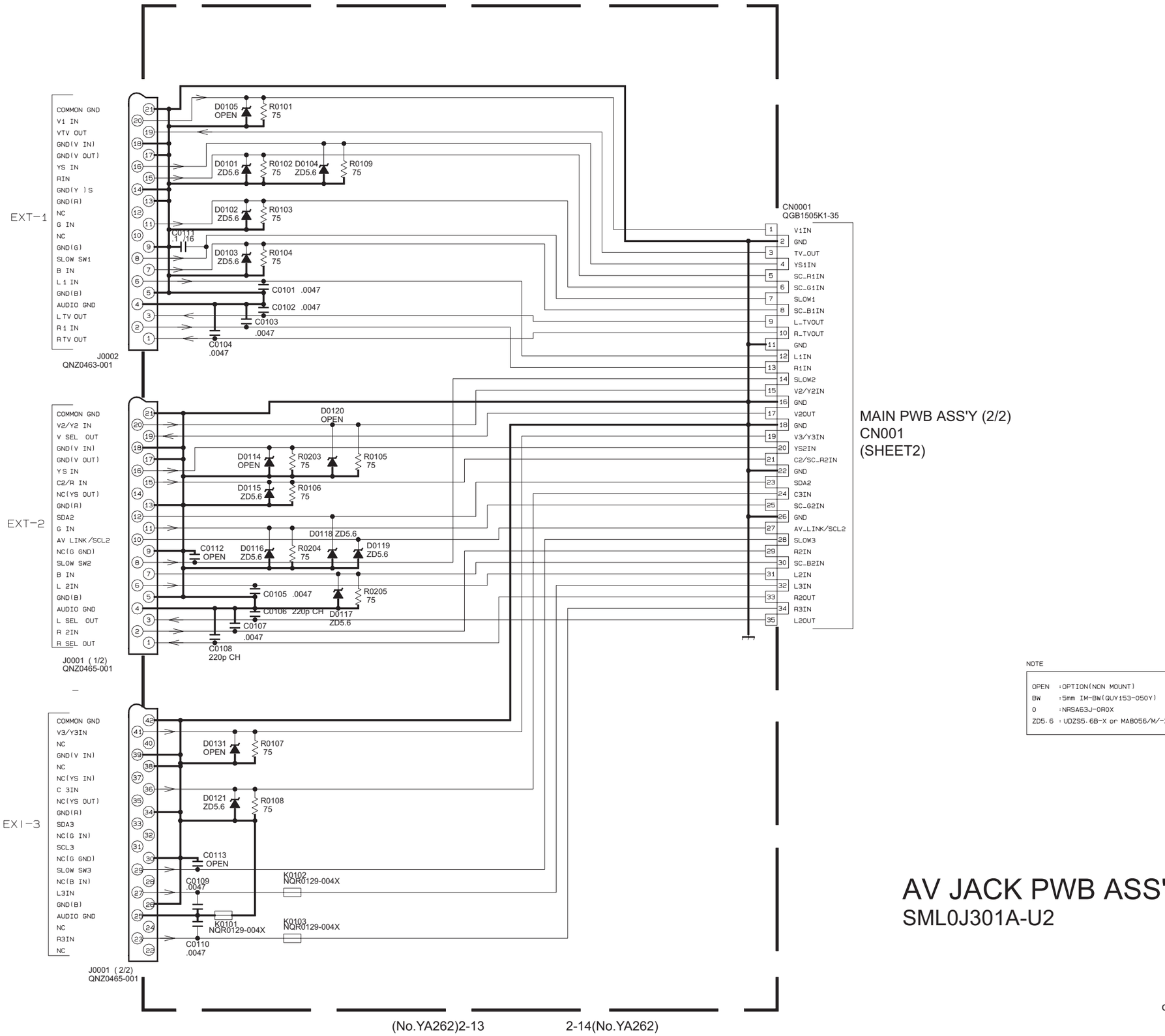
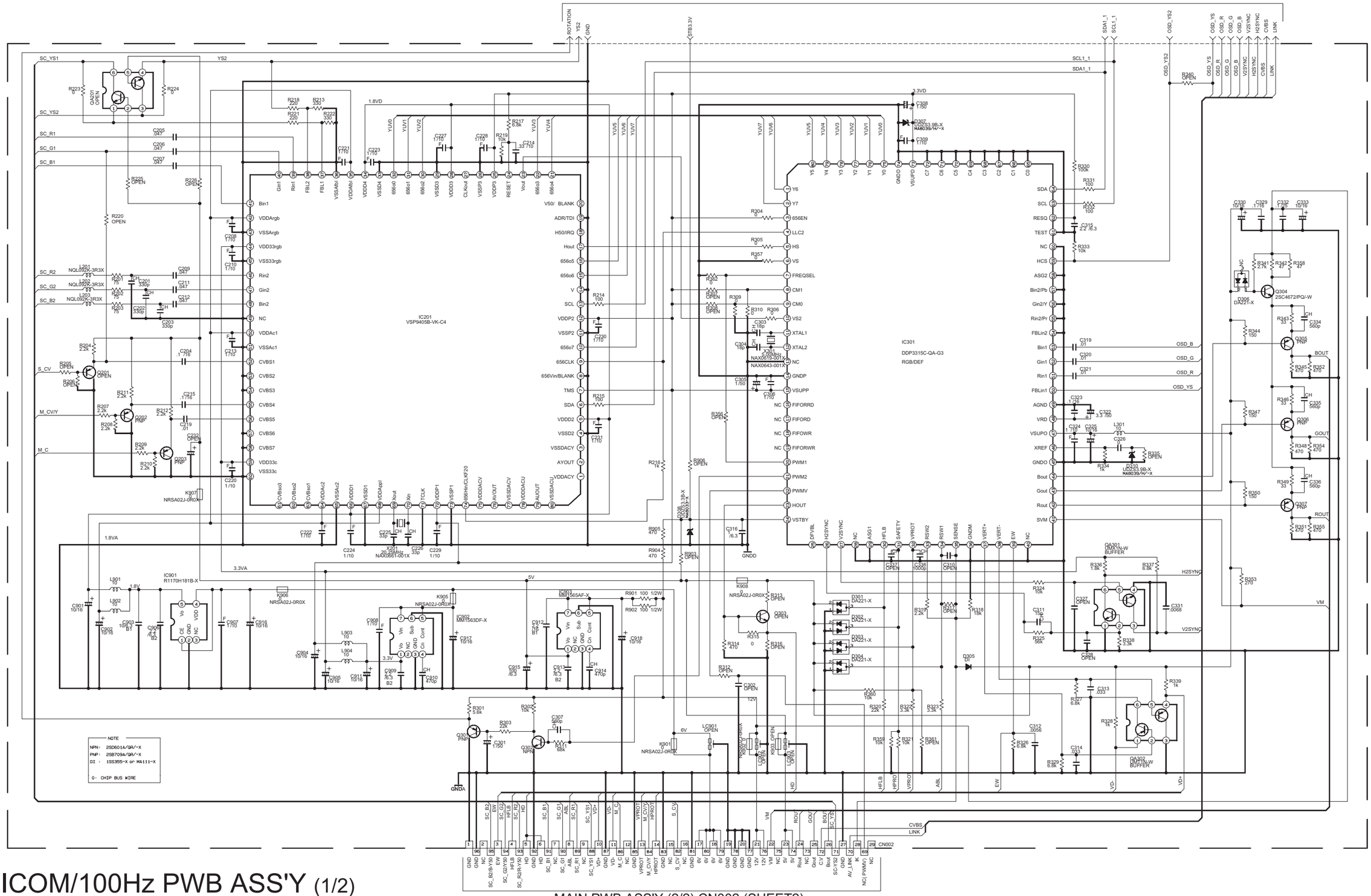
AV JACK PWB CIRCUIT DIAGRAM SHEET 5



SHEET7



MICOM/100Hz PWB ASS'Y (1/2)

SML0Z351A-U2

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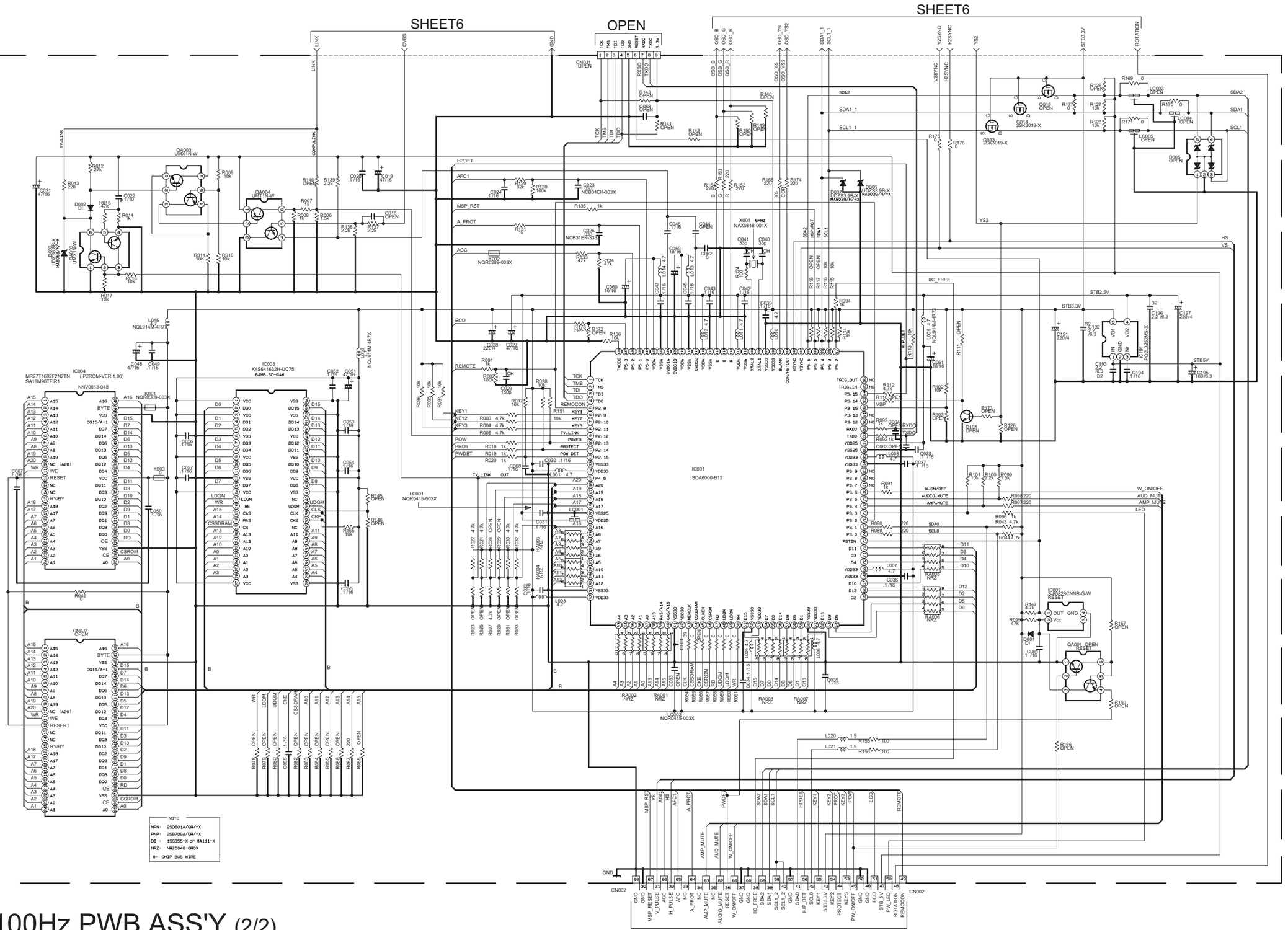

MICOM/100Hz PWB ASS'Y (2/2)

SML0Z351A-U2

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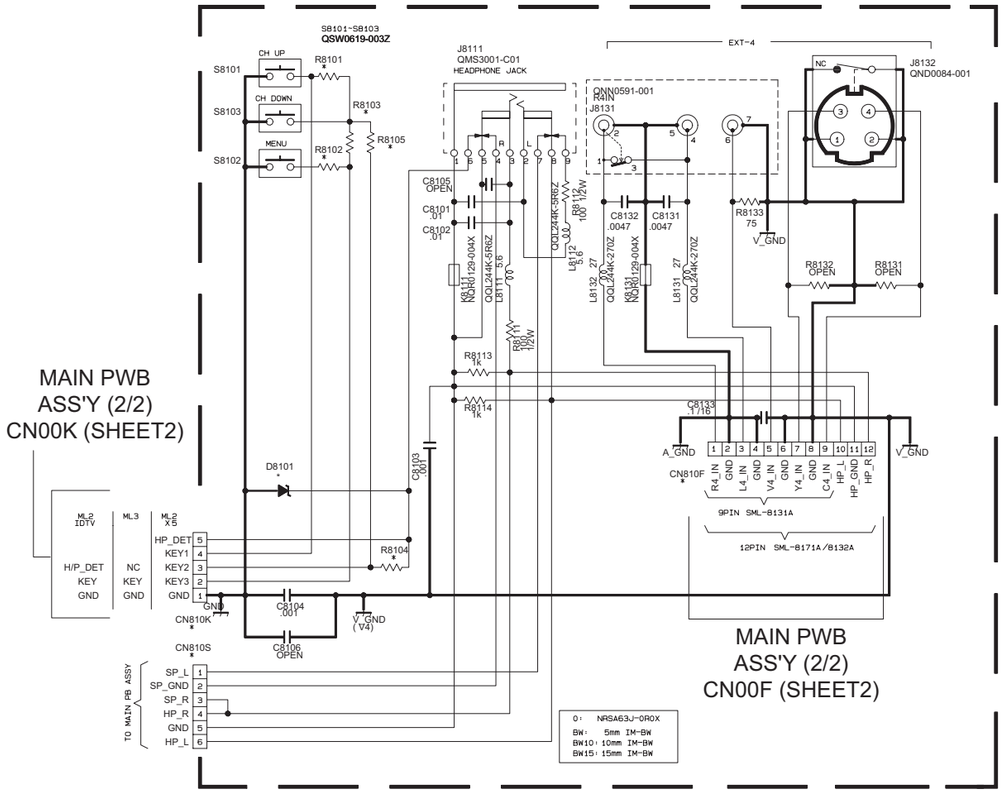
SIDE CONTROL PWB CIRCUIT DIAGRAM SHEET 8



SIDE CONTROL PWB ASS'Y
SML-8132A-U2

*DIFFERENCE LIST

	ML3	ML2-IDTV	ML2/X5
	SML-8131A	SML-8171A	SML-8132A
CN810S	QGA2501 F1-06	OPEN	OPEN
CN810F	QGA2501 F1-09	QGA2501 F1-12	QGA2501 F1-12
CN810K	QGA2501F1 -03	QGA2501F1 -03	QGA2501F1 -05
R8101	820	820	OPEN
R8102	1.5k	1.5k	0
R8103	0	0	OPEN
R8104	OPEN	0	OPEN
R8105	OPEN	OPEN	0
D8101	OPEN	UDZS5.6 B-X	UDZS5.6 B-X

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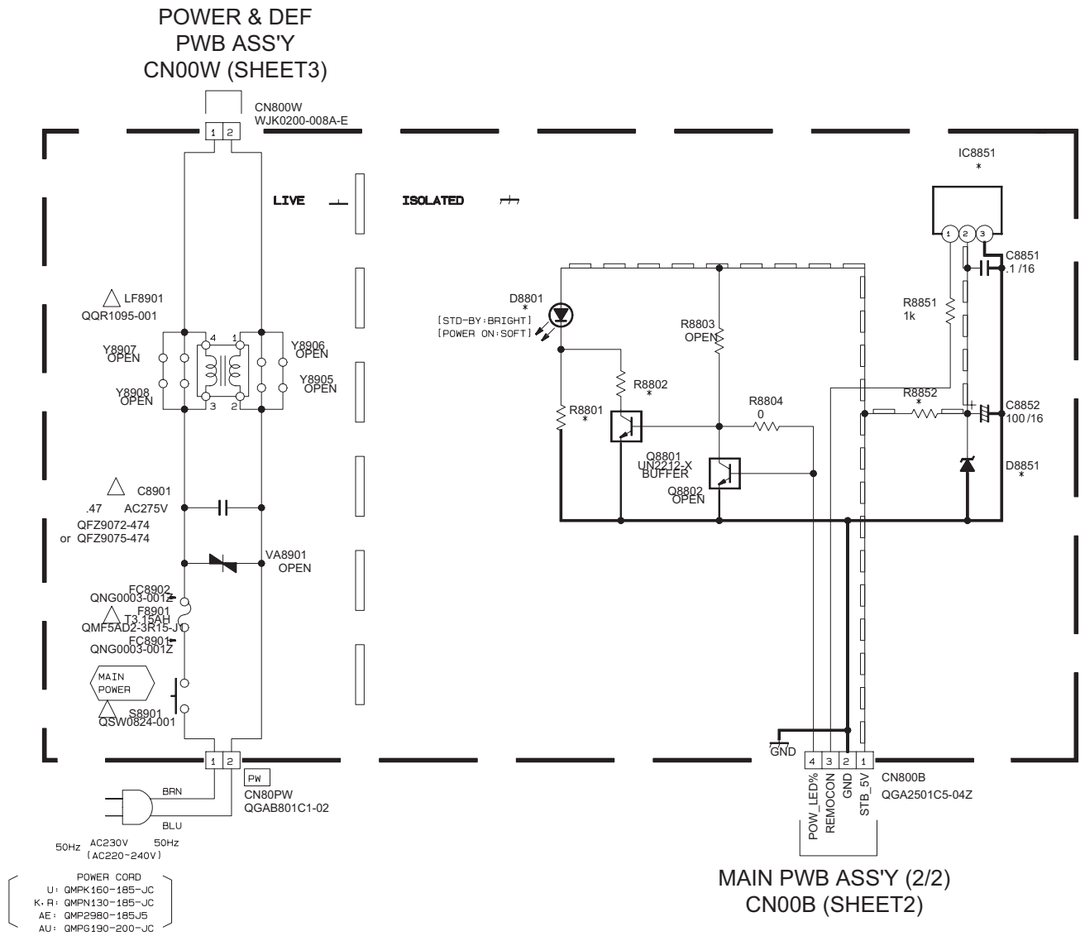
FRONT PWB CIRCUIT DIAGRAM SHEET 9



FRONT PWB ASS'Y
SML-8301A-U2

DIFFEREMCE LIST

	SML-8201A SML-8202A	SML-8302A
D8801	LSR22440	LH22440
R8801	5.6k	2.2k
R8802	2.2k	330
R8852	QUY160 -100Y	QRE121J -470Y
IC8851	QK1UM 281QK	QK1UM281 QKYF
D8851	MA8068 -X	OPEN

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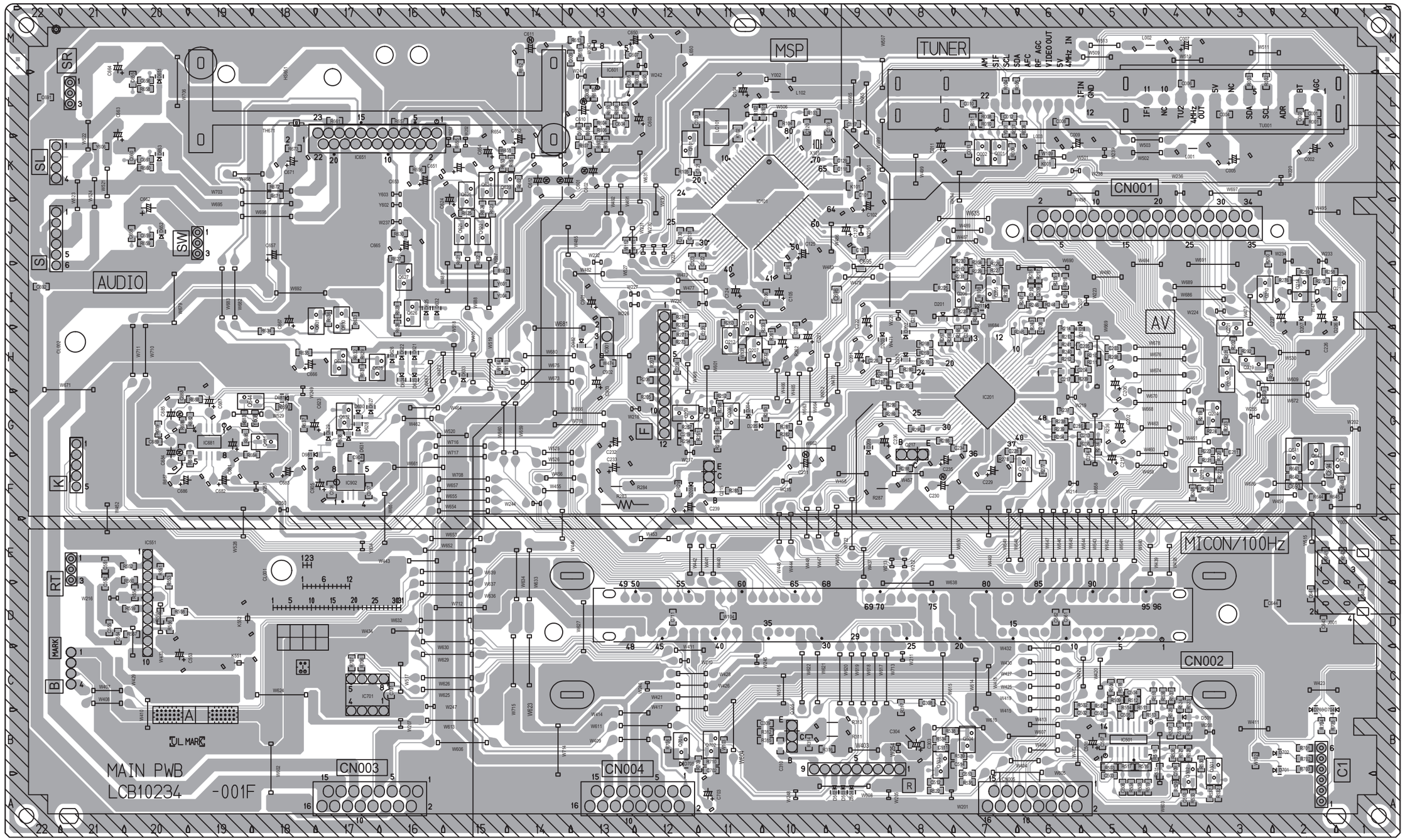
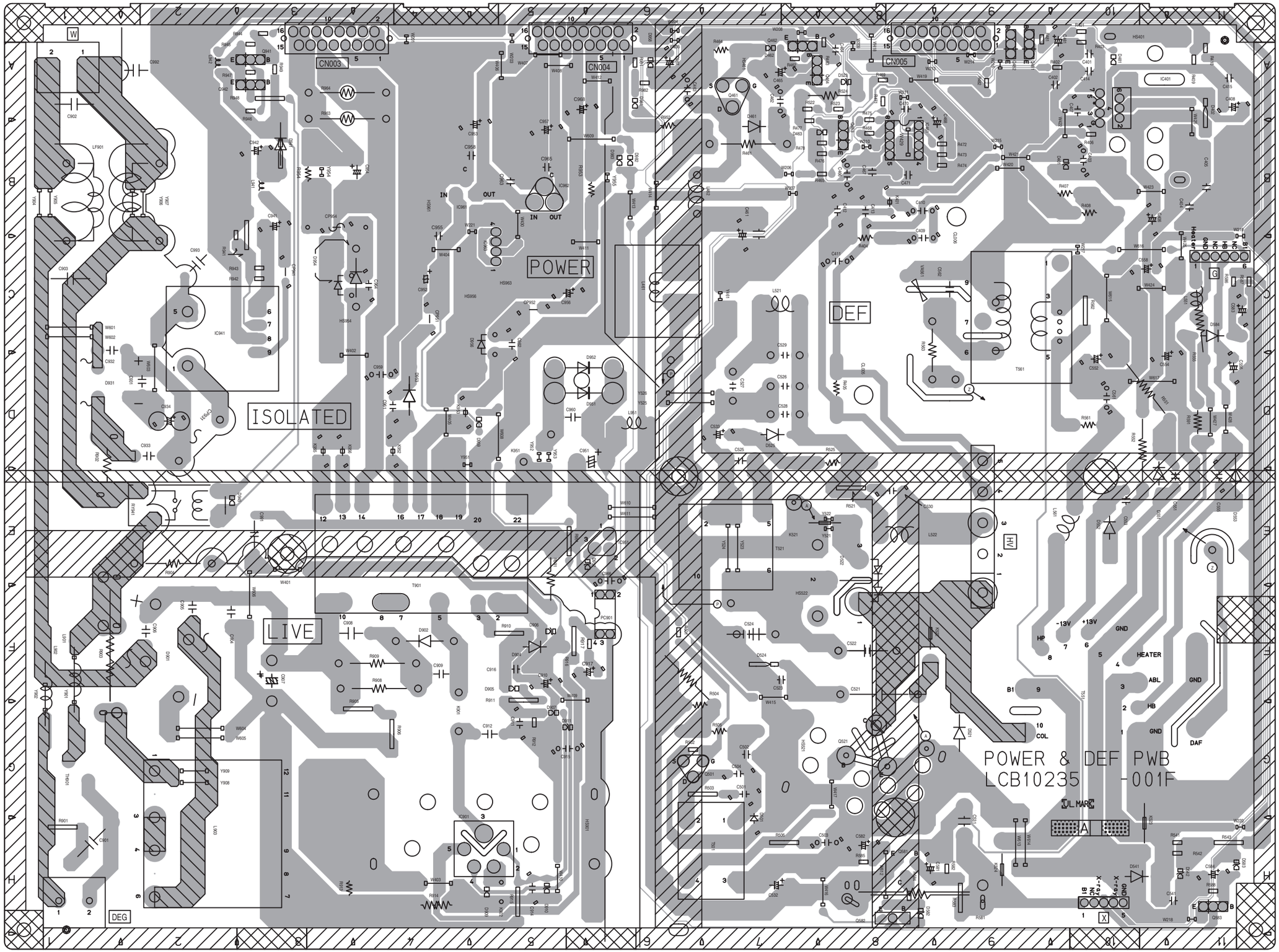
PATTERN DIAGRAMS

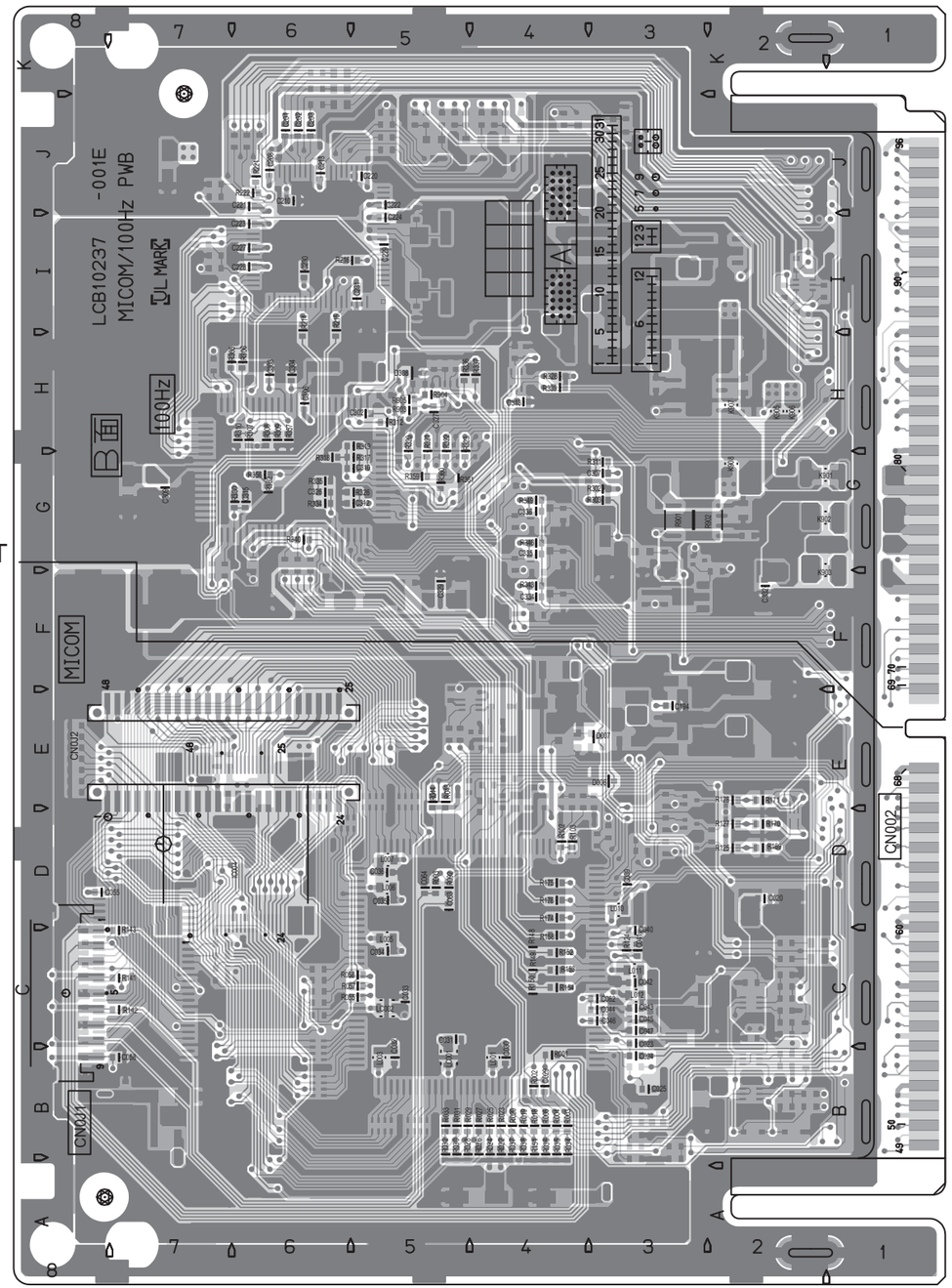
MAIN PWB PATTERN



POWER & DEF PWB PATTERN

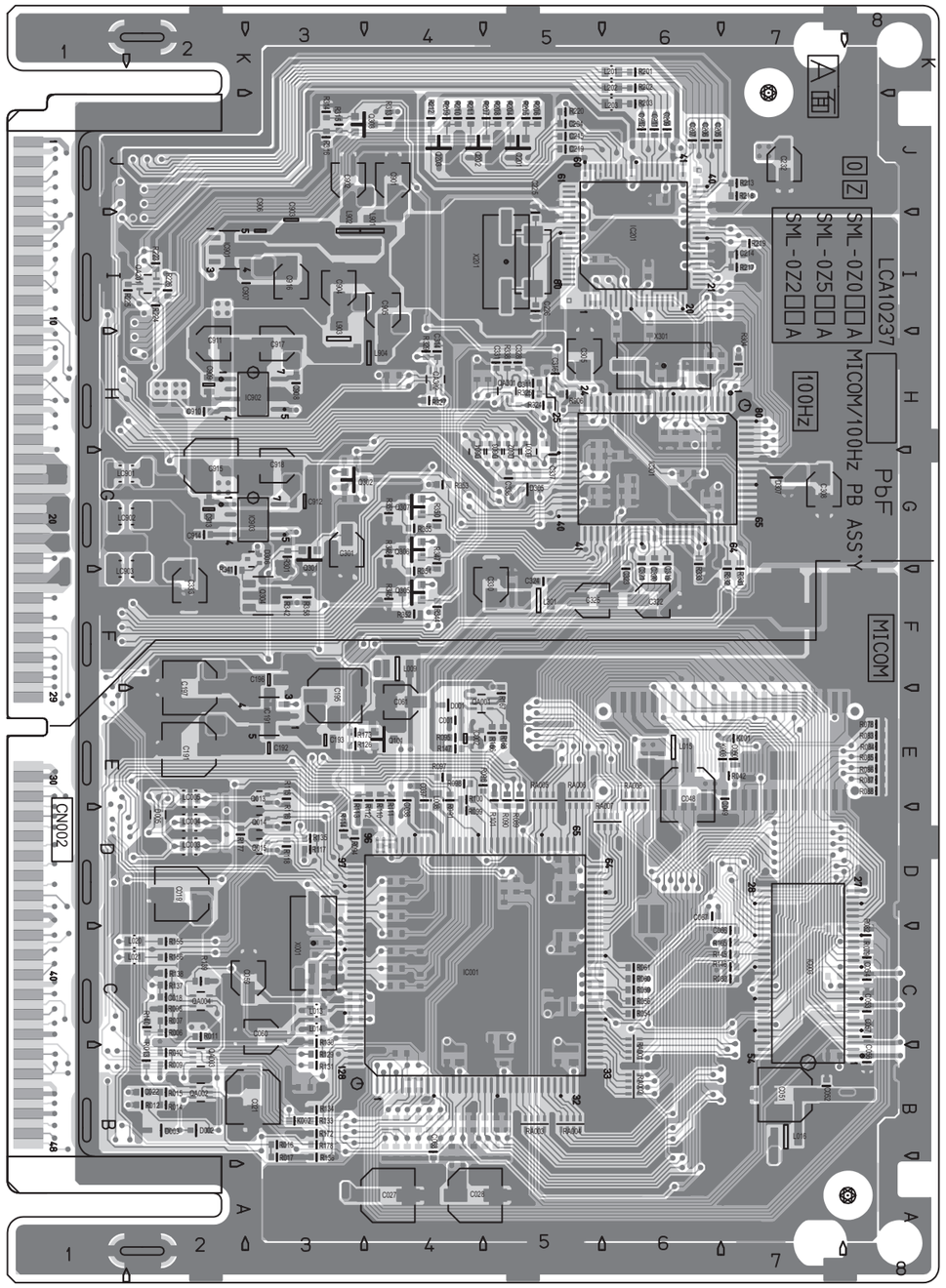


MICON/100Hz PWB PATTERN [SOLDER SIDE]



FRONT

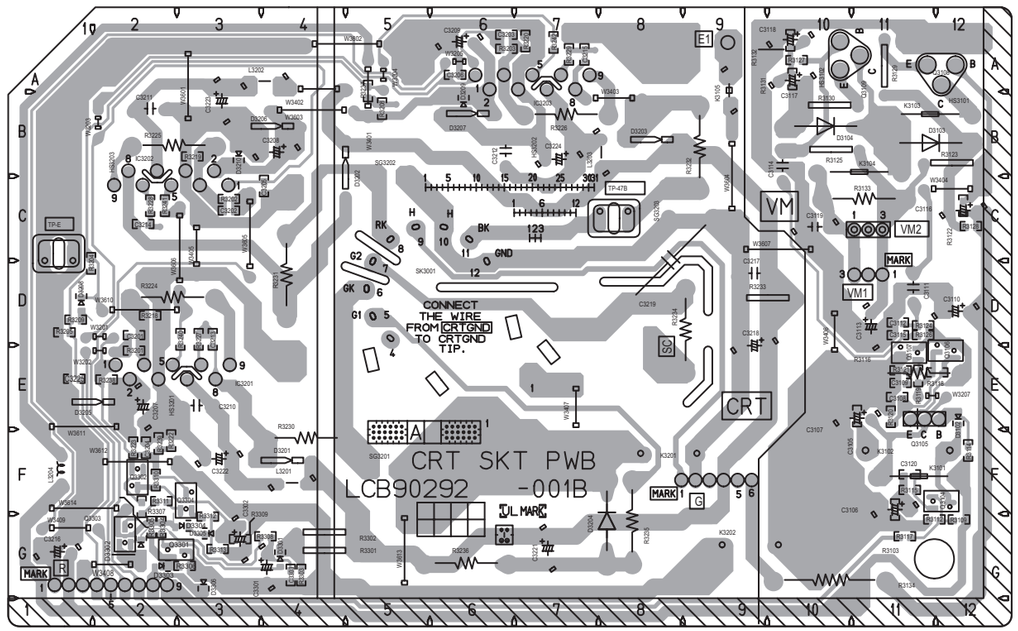
MICON/100Hz PWB PATTERN [PARTS SIDE]



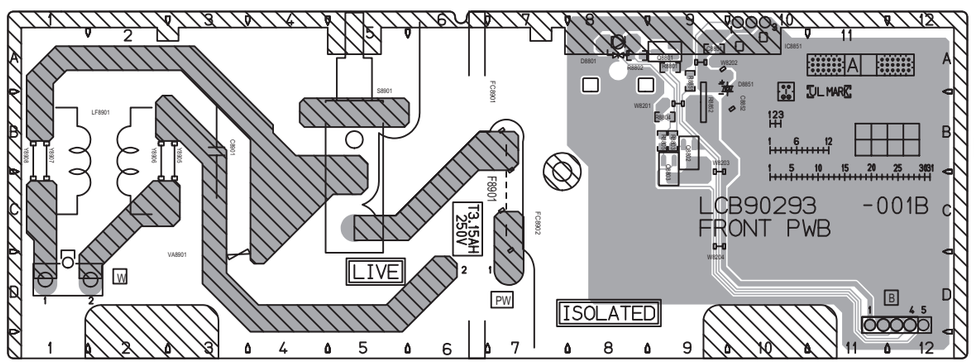
FRONT

CRT SOCKET PWB PATTERN

TOP



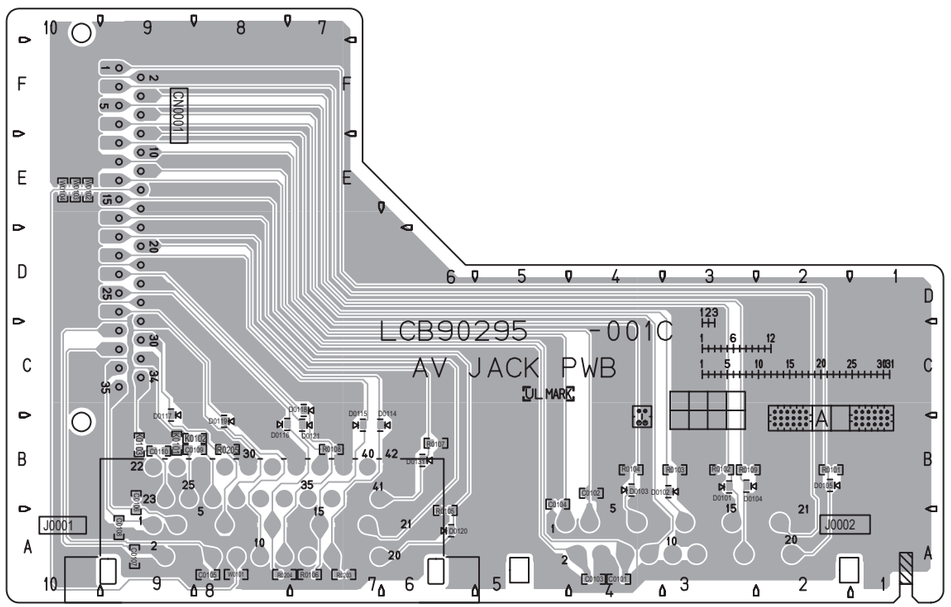
FRONT PWB PATTERN



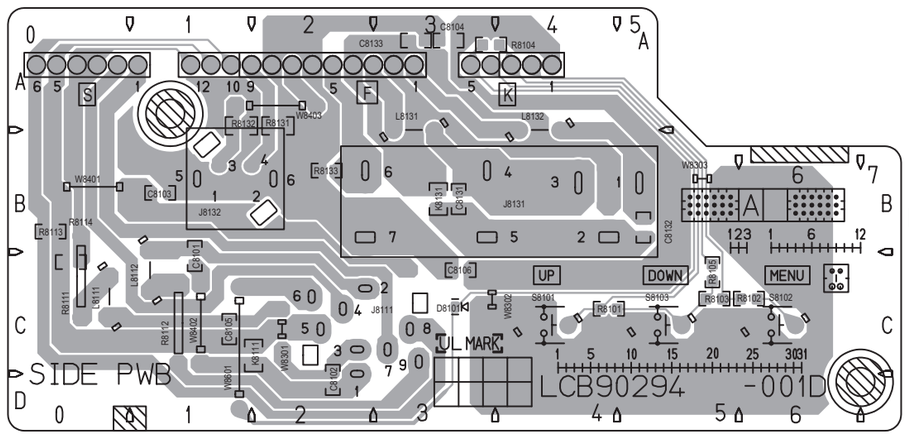
FRONT

AV JACK PWB PATTERN

FRONT



SIDE CONTROL PWB PATTERN



FRONT

VOLTAGE CHARTS

<MAIN PWB(1/2)>
[P.2-5～2-6]

MODE PIN NO.	DC (V)
IC 101	
1	0
2	4.5
3	4.5
4	1.6
5	1.5
6	1.6
7	1.6
8	1.6
9	1.6
10	1.6
11	4.9
12	4.9
13	4.9
14	0
15	0
16	0
17	0
18	0
19	0
20	0
21	4.9
22	0
23	0
24	0.1
25	0.1
26	0
27	0
28	0
29	0
30	0
31	0
32	0
33	3.8
34	3.8
35	0
36	3.7
37	3.7
38	6.9
39	8
40	7
41	0
42	0
43	0
44	0
45	3.7
46	0
47	3.7
48	3.7
49	0
50	3.7
51	3.7
52	0
53	3.7
54	3.7
55	0
56	4.4
57	4.4
58	2.6
59	0
60	3.7
61	0
62	0
63	0
64	0
65	4.9
66	4.9
67	1.5
68	0
69	0
70	0
71	2.2
72	2.1
73	0
74	2.6
75	0
76	0
77	0
78	0
79	2.5
80	4.9
IC 601	
1	4.4
2	4.4
3	4.3
4	0
5	4.4
6	4.4
7	4.4
8	8.9
IC 651	
1	0
2	0
3	28
4	0
5	0
6	0

MODE PIN NO.	DC (V)
7	14.2
8	0.7
9	0
10	29.6
11	15.5
12	14.1
IC 681	
1	2.4
2	4.6
3	2.4
4	0
5	0
6	2.4
7	2.4
8	5.8
TU 001	
1	18
2	3.2
3	0
4	4.5
5	4.5
6	0
7	4.8
8	0
9	31.4
10	0
11	2.5
12	0
13	2.5
14	0
15	4.9
16	1.3
17	1.8
18	1.7
19	4.6
20	4.5
21	2
22	2.5
Q 001	
E	2
C	4.6
B	2.7
Q 002	
E	3.9
C	8.9
B	4.6
Q 101	
E	0
C	4.9
B	0
Q 621	
E	0.2
C	-1.6
B	0
Q 623	
E	0
C	0
B	-1.6
Q 624	
E	0
C	0
B	-1.5
Q 628	
E	0
C	4.1
B	0
Q 629	
E	0
C	0
B	0.6
Q 632	
E	5.3
C	-1.8
B	5.8
Q 641	
E	0.1
C	-1.5
B	0
Q 642	
E	0
C	4.1
B	-1.5
Q 643	
E	0
C	4.1
B	-1.5
Q 681	
E	0
C	4.6
B	0.1

<MAIN PWB(2/2)>
[P.2-7～2-8]

MODE PIN NO.	DC (V)
IC 201	
1	3.9
2	4.4
3	3.9
4	4.4
5	4.4
6	6.6
7	0
8	3.9
9	4.4
10	3.9
11	4.4
12	4.4
13	6.6
14	0
15	3.9
16	4.4
17	3.9
18	4.4
19	4.4
20	6.6
21	0
22	4.4
23	4.3
24	4.4
25	0
26	4.4
27	4.5
28	4.4
29	4.3
30	4.4
31	3.5
32	4.4
33	3.5
34	8.9
35	0
36	4.9
37	4.4
38	4.4
39	4.4
40	4.4
41	4.4
42	3.6
43	4.1
44	0
45	4.3
46	4.4
47	3.9
48	4.4
IC 501	
1	5.8
2	5.7
3	5.7
4	12
5	3.4
6	3.4
7	2.8
8	2.3
9	2.4
10	2.4
11	0
12	3
13	3
14	5.5
IC 551	
1	6.4
2	6.4
3	6.4
4	6.4
5	0
6	6.4
7	6.4
8	6.4
9	0
10	11.8
IC 701	
1	0
2	0
3	0
4	0
5	3.3
6	3.3
7	0
8	3.3
IC 901	
1	12
2	8
3	0
IC 902	
1	5
2	0
3	0
4	3.4
5	5.8
6	0
7	5.8

MODE PIN NO.	DC (V)
Q 201	
E	4.4
C	4.5
B	0
Q 202	
E	1
C	4.5
B	0
Q 207	
E	0
C	0
B	-1.5
Q 210	
E	0.1
C	-0.4
B	0
Q 211	
E	0
C	0
B	-1.2
Q 212	
E	0.1
C	-1.4
B	0
Q 213	
E	0
C	0
B	-1.5
Q 214	
E	0
C	0
B	-0.3
Q 215	
E	2.1
C	0
B	1.4
Q 216	
E	3.8
C	8.8
B	4.4
Q 217	
E	2.8
C	8.8
B	3.5
Q 219	
E	0
C	0
B	0.6
Q 305	
E	1
C	5.9
B	1.8
Q 501	
E	0
C	12
B	-1.4
Q 502	
E	1.8
C	4.3
B	2.4
Q 701	
E	5.6
C	0
B	5.8
Q 702	
E	0
C	3.3
B	0

<POWER&DEF PWB>
[P2-9～2-10]

MODE PIN NO.	DC (V)
IC 401	
1	0.6
2	14.3
3	-12.4
4	-14.5
5	0.1
6	14.3
7	0.6
IC 461	
1	3.5
2	1
3	2.1
4	0
5	5.8
6	3.5
7	10.5
8	12
IC 901	
1	0.5
2	0
3	30.4
4	18.7
5	2.9

MODE PIN NO.	DC (V)
IC 941	
1	25.3
5	-47.5
6	0
7	0
8	0
9	4.9
IC 951	
1	140.7
2	10.6
3	0
IC 962	
1	12
2	8.9
3	0
IC 963	
1	13.2
2	11.9
3	0
4	13.2
Q 461	
S	0.5
D	16.3
G	10.5
Q 462	
E	0
C	2.1
B	0.4
Q 463	
E	1
C	12
B	0.8
Q 464	
E	2.1
C	0
B	2.6
Q 481	
E	0
C	0
B	1.6
Q 482	
E	0
C	2.1
B	0
Q 501	
S	0
D	39.8
G	1.4
Q 521	
E	0
C	138
B	0
Q 581	
E	140.6
C	0.1
B	140.3
Q 582	
E	0
C	2.1
B	0
Q 583	
E	0
C	2.1
B	0.1
Q 941	
E	0
C	0.7
B	0.1
Q 942	
E	0
C	0.3
B	0.7
PC 901	
1	11.5
2	10.5
3	0
4	2.6

<CRT SOCKET PWB>
[P.2-11～2-12]

MODE PIN NO.	DC (V)
IC 3201	
1	3
2	11.9
3	2.8
4	0
5	8.3
6	214
7	131
8	134
9	130
IC 3202	
1	3
2	11.9
3	2.8
4	0

MODE PIN NO.	DC (V)
5	8.3
6	214
7	133
8	135
9	132
IC 3203	
1	3
2	11.9
3	2.8
4	0
5	8.4
6	214
7	131
8	133
9	130
Q 3104	
E	11
C	6.4
B	1.8
Q 3105	
E	6.4
C	12
B	7.1
Q 3108	
E	129
C	66
B	128.4
Q 3109	
E	3.1
C	66.4
B	3.6
Q 3301	
E	4.9
C	0
B	11.9
Q 3303	
E	5.6
C	-1.5
B	5.9
Q 3304	
E	0
C	3
B	-1.5

<MICOM/100Hz PWB(1/2)>
[P.2-15～2-16]

MODE PIN NO.	DC (V)
IC 201	
1	2.1
2	0.6
3	0.1
4	0
5	1.7
6	2.5
7	3.2
8	0
9	2
10	1.8
11	0
12	3.2
13	2.5
14	0
15	1.1
16	1.1
17	0.3
18	0.2
19	0
20	0
21	2.2
22	1.1
23	0
24	1.9
25	3.2
26	0
27	0
28	1.7
29	0
30	1.3
31	1.1
32	1.1
33	0
34	1.7
35	0
36	0
37	0
38	0
39	0.7
40	0.6
41	0.6
42	0
43	0
44	3.3
45	0
46	0
47	0
48	0

MODE PIN NO.	DC (V)
49	0
50	1.7
51	0
52	1
53	0
54	0
55	1
56	0.7
57	0
58	0
59	3.3
60	0
61	1.7
62	0.8
63	1.7
64	1.7
65	0
66	1.7
67	0
68	1.7
69	0.3
70	0.5
71	0
72	3.2
73	0
74	1.7
75	2.3
76	0.7
77	0.1
78	1.4
79	0.3
80	0.1
IC 301	
1	1.1
2	1.8
3	3.2
4	2
5	0.3
6	0
7	0
8	0
9	0
10	0
11	1.4
12	1.4
13	0
14	0
15	3.2
16	0
17	0
18	0
19	0
20	0
21	0
22	0
23	0
24	0
25	0
26	0
27	0
28	0
29	0
30	0.6
31	0.1
32	0
33	0
34	0
35	0
36	0
37	1.4
38	1.5
39	2.4
40	0
41	4.7
42	4.7
43	4.7
44	4.7
45	0
46	2.3
47	5
48	2.5
49	0
50	0
51	0.2
52	0
53	0.2
54	0
55	0
56	0
57	0
58	0
59	0
60	0
61	0
62	0
63	2.5
64	2.5

MODE PIN NO.	DC (V)
65	0
66	0
67	0
68	0
69	0
70	0
71	0
72	0
73	3.2
74	0
75	1.1
76	1.1
77	1.3
78	1.1
79	2.1
80	1.1
IC 901	
1	0
2	0
3	5.9
4	5.9
5	1
6	0
7	0
8	0
9	0
10	0
11	1.4
12	1.4
13	0
14	0
15	3.2
16	0
17	0
18	0
19	0
20	0
21	0
22	0
23	0
24	3.3
25	0
26	0.1
27	0
28	0
29	0
30	0.6
31	0.1
32	0
33	0
34	0
35	0
36	0
37	1.4
38	1.5
39	2.4
40	0
41	4.7
42	4.7
43	4.7
44	4.7
45	0
46	2.3
47	5
48	2.5
49	0
50	0
51	0.2
52	0
53	0.2
54	0
55	0
56	0
57	0
58	0
59	0
60	0
61	0
62	0
63	2.5
64	2.5

<MICOM/100Hz PWB(2/2)>
[P.2-17～2-18]

MODE PIN NO.	DC (V)
IC 001	
1	0
2	1
3	0
4	1
5	2.4
6	3.1
7	3.1
8	3.1
9	0
10	0
11	0
12	3.3
13	0
14	3.3
15	0
16	0
17	0
18	0
19	0
20	0
21	2.4
22	0
23	0
24	0
25	0
26	0
27	1.3
28	0.7
29	0
30	2.6
31	0
32	3.3
33	1.3
34	1.3
35	1.3
36	0
37	0
38	2.6
39	3
40	3.1
41	0
42	3.3
43	6.4
44	3.1
45	3.3
46	3.3

MODE PIN NO.	DC (V)
13	0
14	0.3
15	0
16	0
17	5.8
18	5.9
19	0
20	0
21	12
22	4.8
23	0
24	2.6
25	2.6
26	2.6
27	0
28	1.5
29	0
30	0
31	0
32	0
33	0
34	0
35	0
36	0
37	0
38	0
39	0
40	0
41	0
42	0
43	0
44	0
45	0
46	0
47	3.3
48	0
49	0
50	0
51	2.6
52	0
53	3.3
54	0.3
55	0.2
56	2.6
57	0.3
58	0.2
59	0.3
60	0
61	3.3
62	0.3
63	0.3
64	0.3
65	0
66	0
67	0
68	0
69	3.3
70	0
71	0
72	0
73	*
74	3.1
75	3.1
76	1.7
77	0
78	0
79	0.1
80	0
81	2.3
82	0
83	2.3
84	0
85	3.3
86	0
87	2.4
88	0
89	2.23
90	0
91	0
92	0
93	3
94	3
95	2.4
96	3.3
97	0
98	2.5
99	2.5
100	0
101	0
102	3.2
103	3.3
104	0
105	0
106	3.3
107	0
108	0
109	0.4
110	0
111	2.3
112	0
113	0
114	0
115	0
116	2.3
117	0
118	0
119	0
120	0
121	0
122	0
123	0
124	0
125	0
126	0
127	*
128	*
IC 002	
1	3.2
2	*
3	NC
4	0
IC 003	
1	3.2
2	0
3	3.2
4	0
5	0
6	0
7	0
8	0
9	3.3

MODE PIN NO.	DC (V)
10	0
11	0
12	0
13	0
14	3.3
15	0
16	3.2
17	3.1
18	3
19	3.1
20	2.6
21	2.6
22	0.7
23	0
24	0
25	1.3
26	1.3
27	3.3
28	0
29	1.3
30	0
31	1.3
32	1.3
33	0
34	0
35	0
36	0
37	3.3
38	0
39	0.6
40	1.1
41	0.5
42	1.4
43	1.6
44	2.1
45	2
46	0
47	3.2
48	0
IC 191	
1	4.8
2	0

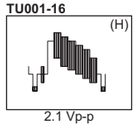
MODE PIN NO.	DC (V)
3	1.2
4	2.4
5	3.3
Q 013	
S	2.5
D	4.4
G	3.3
Q 014	
S	2.5
D	0
G	3.3
QA 002	
1	0
2	-0.2
3	-0.2
4	0
5	-0.9
6	0
QA 003	
1	4.4
2	2.1
3	0
4	4.4
5	2.4
6	4.9
QA 004	
1	4.8
2	0
3	0
4	2.4
5	1.8
6	0
CN 002	
30	0
31	3.2
32	3.3
33	0
34	0
35	0
36	3.2
37	0
38	0
39	4.5
40	4.4
41	3.3
42	3.3
43	3.3
44	2.1
45	0
46	0
47	4.8
48	12
49	2.6
50	0
51	0
52	0
53	3.3
54	3.3
55	3.3
56	3.3
57	0
58	4.4
59	4.4
60	0
61	0
62	0.1
63	0
64	0
65	1.6
66	1.8
67	0
68	0

<FRONT SOCKET PWB>
[P.2-20]

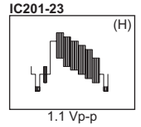
MODE PIN NO.	DC (V)
IC 8851	
1	2.6
2	4.8
3	0
Q 8801	
E	0
C	3.2
B	0

WAVEFORMS

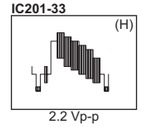
MAIN PWB(1/2) MAIN PWB(2/2)

TU001-16


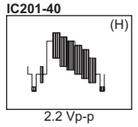
2.1 Vp-p

IC201-23


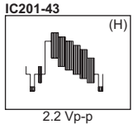
1.1 Vp-p

IC201-33


2.2 Vp-p

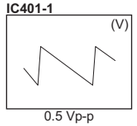
IC201-40


2.2 Vp-p

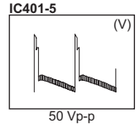
IC201-43


2.2 Vp-p

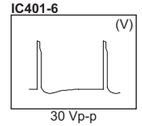
POWER & DEF PWB

IC401-1


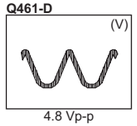
0.5 Vp-p

IC401-5


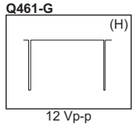
50 Vp-p

IC401-6


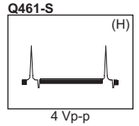
30 Vp-p

Q461-D


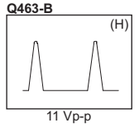
4.8 Vp-p

Q461-G


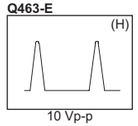
12 Vp-p

Q461-S


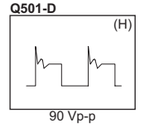
4 Vp-p

Q463-B


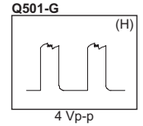
11 Vp-p

Q463-E


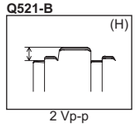
10 Vp-p

Q501-D


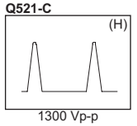
90 Vp-p

Q501-G


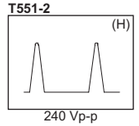
4 Vp-p

Q521-B


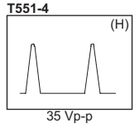
2 Vp-p

Q521-C


1300 Vp-p

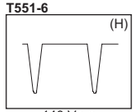
T551-2


240 Vp-p

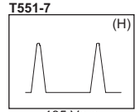
T551-4


35 Vp-p

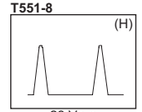
CRT SOCKET PWB

T551-6


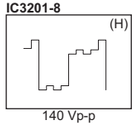
140 Vp-p

T551-7


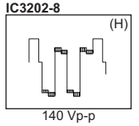
135 Vp-p

T551-8


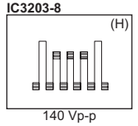
28 Vp-p

IC3201-8


140 Vp-p

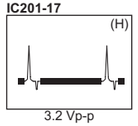
IC3202-8


140 Vp-p

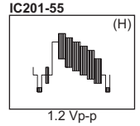
IC3203-8


140 Vp-p

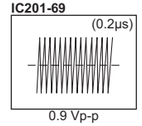
MICOM/100Hz PWB(1/2)

IC201-17


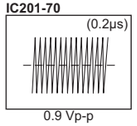
3.2 Vp-p

IC201-55


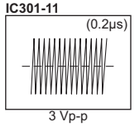
1.2 Vp-p

IC201-69


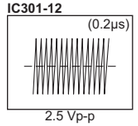
0.9 Vp-p

IC201-70


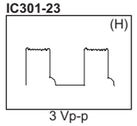
0.9 Vp-p

IC301-11


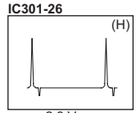
3 Vp-p

IC301-12


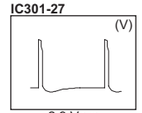
2.5 Vp-p

IC301-23


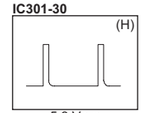
3 Vp-p

IC301-26


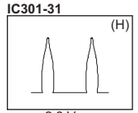
2.8 Vp-p

IC301-27


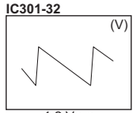
2.9 Vp-p

IC301-30


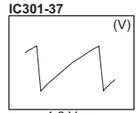
5.8 Vp-p

IC301-31


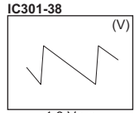
2.8 Vp-p

IC301-32


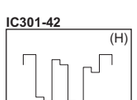
1.2 Vp-p

IC301-37


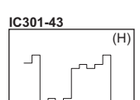
1.8 Vp-p

IC301-38


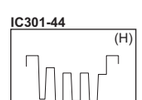
1.8 Vp-p

IC301-42


0.4 Vp-p

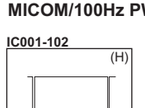
IC301-43


0.4 Vp-p

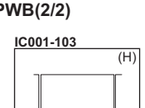
IC301-44


0.4 Vp-p

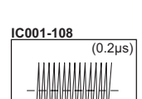
MICOM/100Hz PWB(2/2)

IC001-102


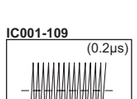
3.1 Vp-p

IC001-103


0.15 Vp-p

IC001-108


1.2 Vp-p

IC001-109


1.2 Vp-p

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